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INSTITUTE OF MEDICINE

SOCIAL SECURITY STUDIES
FINAL REPORT

Medicare-Medicaid Reimbursement Policies

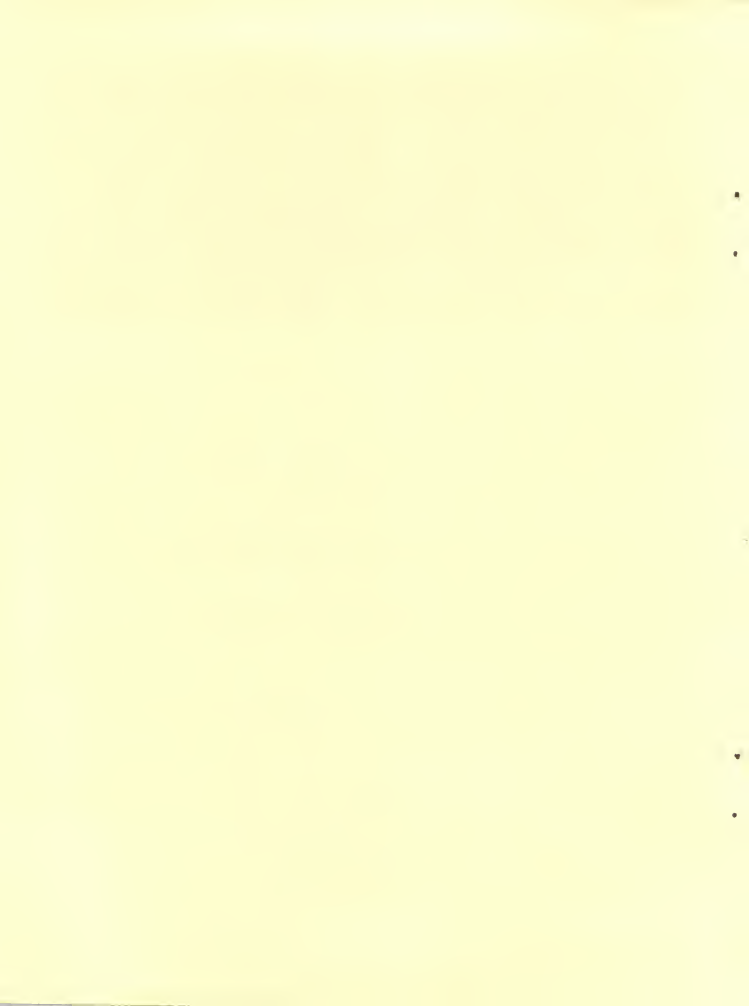
March 1976

PART I - FINDINGS AND RECOMMENDATIONS

NATIONAL
ACADEMY of
SCIENCES
Washington, D.C.

REPORTS

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INSTITUTE OF MEDICINE

MEDICARE-MEDICAID REIMBURSEMENT POLICIES

Social Security Studies

Final Report

March 1976

Part I

Supported by U.S. Department of Health, Education, and
Welfare Contract No. SSA-PMB-74-250

National Academy of Sciences
Washington, D.C.

NOTICE

The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the Councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The members of the Committee responsible for the report were chosen for their special competences and with regard for appropriate balance.

This report has been reviewed by a group other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The Institute of Medicine was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of medical and other professions for the examination of policy matters pertaining to the health of the public. In this, the Institute acts under both the Academy's 1863 Congressional charter responsibility to be an advisor to the Federal Government, and its own initiative in identifying issues of medical care, research, and education.

2101 Constitution Avenue, N.W., Washington, D.C. 20418

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IOM Publication 76-01

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE

WASHINGTON, D. C. 20418

INSTITUTE OF MEDICINE

OFFICE OF THE PRESIDENT

March 1, 1976

The Honorable Russell B. Long
Chairman
Committee on Finance
United States Senate
Washington, D.C. 20501

Dear Mr. Chairman:

I am pleased to present to the Committee on Finance Parts I and II of the final report of the studies conducted by the Institute of Medicine, National Academy of Sciences, pursuant to Section 15(c) of the Social Security Act Amendments of 1973 (P.L. 93-233). These provisions requested the Secretary of Health, Education, and Welfare to arrange for studies concerning: (A) appropriate and equitable methods of reimbursement for physician services under Titles XVIII and XIX of the Social Security Act in hospitals which have a teaching program approved as specified in section 1861(b)(6) of such Act, (B) the extent to which funds expended under such titles are supporting the training of medical specialties which are in excess supply, (C) how such funds could be expended in ways which support more rational distribution of physician manpower both geographically and by specialty, (D) the extent to which such funds support or encourage teaching programs which tend to disproportionately attract foreign medical graduates, and (E) the existing and appropriate role that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861(b)(6) of such Act.

Part I of the report contains the summary of findings, conclusions, and recommendations. Part II contains detailed data and findings on the organization and financing of teaching hospital activities and compensation of teaching physicians, graduate medical education, payment options and their impacts, specialty and geographic distribution of physicians, and foreign medical graduates.

Part III of the report, which is a technical description of the methodology used to collect and analyze the data, will be transmitted in May.

We shall be pleased to discuss this report in greater detail with the members and staff of your committee.

Sincerely yours,



David A. Hamburg, M.D.
President

Enclosure

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE

WASHINGTON, D. C. 20418

March 1, 1976

INSTITUTE OF MEDICINE

OFFICE OF THE PRESIDENT

The Honorable Al Ullman
Chairman
Committee on Ways and Means
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

I am pleased to present to the Committee on Ways and Means Parts I and II of the final report of the studies conducted by the Institute of Medicine, National Academy of Sciences, pursuant to Section 15(c) of the Social Security Act Amendments of 1973 (P.L. 93-233). These provisions requested the Secretary of Health, Education, and Welfare to arrange for studies concerning: (A) appropriate and equitable methods of reimbursement for physician services under Titles XVIII and XIX of the Social Security Act in hospitals which have a teaching program approved as specified in section 1861(b)(6) of such Act, (E) the extent to which funds expended under such titles are supporting the training of medical specialties which are in excess supply, (C) how such funds could be expended in ways which support more rational distribution of physician manpower both geographically and by specialty, (D) the extent to which such funds support or encourage teaching programs which tend to disproportionately attract foreign medical graduates, and (E) the existing and appropriate role that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861(b)(6) of such Act.

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David A. Hamburg, M.D.
President

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NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE

WASHINGTON, D. C. 20418

INSTITUTE OF MEDICINE

OFFICE OF THE PRESIDENT

March 1, 1976

The Honorable Harley O. Staggers
Chairman
Committee on Interstate and Foreign
Foreign Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

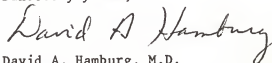
I am pleased to present to the Committee on Interstate and Foreign Commerce Parts I and II of the final report of the studies conducted by the Institute of Medicine, National Academy of Sciences, pursuant to Section 15(c) of the Social Security Act Amendments of 1973 (P.L. 93-233). These provisions requested the Secretary of Health, Education, and Welfare to arrange for studies concerning: (A) appropriate and equitable methods of reimbursement for physician services under Titles XVIII and XIX of the Social Security Act in hospitals which have a teaching program approved as specified in section 1861(b)(6) of such Act, (B) the extent to which funds expended under such titles are supporting the training of medical specialties which are in excess supply, (C) how such funds could be expended in ways which support more rational distribution of physician manpower both geographically and by specialty, (D) the extent to which such funds support or encourage teaching programs which tend to disproportionately attract foreign medical graduates, and (E) the existing and appropriate role that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861(b)(6) of such Act.

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David A. Hamburg, M.D.
President

Enclosure

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE

WASHINGTON, D. C. 20418

INSTITUTE OF MEDICINE

OFFICE OF THE PRESIDENT

March 1, 1976

The Honorable David Mathews
Secretary of Health, Education,
and Welfare
Washington, D.C. 20201

My dear Mr. Secretary:

I am pleased to present to the Department of Health, Education, and Welfare Parts I and II of the final report of the studies conducted by the Institute of Medicine, National Academy of Sciences, pursuant to Section 15(c) of the Social Security Act Amendments of 1973 (P.L. 93-233). These provisions requested the Secretary of Health, Education, and Welfare to arrange for studies concerning: (A) appropriate and equitable methods of reimbursement for physician services under Titles XVIII and XIX of the Social Security Act in hospitals which have a teaching program approved as specified in section 1861(b)(6) of such Act, (B) the extent to which funds expended under such titles are supporting the training of medical specialties which are in excess supply, (C) how such funds could be expended in ways which support more rational distribution of physician manpower both geographically and by specialty, (D) the extent to which such funds support or encourage teaching programs which tend to disproportionately attract foreign medical graduates, and (E) the existing and appropriate role that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861(b)(6) of such Act.

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David A. Hamburg, M.D.
President

Enclosure

NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE

WASHINGTON, D. C. 20418

INSTITUTE OF MEDICINE

OFFICE OF THE PRESIDENT

March 1, 1976

The Honorable James B. Cardwell
Commissioner of Social Security
Baltimore, Maryland 21235

Dear Mr. Cardwell:

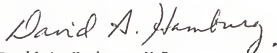
I am pleased to present to the Social Security Administration Parts I and II of the final report of the studies conducted by the Institute of Medicine, National Academy of Sciences, pursuant to Section 15(c) of the Social Security Act Amendments of 1973 (P.L. 93-233). These provisions requested the Secretary of Health, Education, and Welfare to arrange for studies concerning: (A) appropriate and equitable methods of reimbursement for physician services under Titles XVIII and XIX of the Social Security Act in hospitals which have a teaching program approved as specified in section 1861(b)(6) of such Act, (B) the extent to which funds expended under such titles are supporting the training of medical specialties which are in excess supply, (C) how such funds could be expended in ways which support more rational distribution of physician manpower both geographically and by specialty, (D) the extent to which such funds support or encourage teaching programs which tend to disproportionately attract foreign medical graduates, and (E) the existing and appropriate role that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861(b)(6) of such Act.

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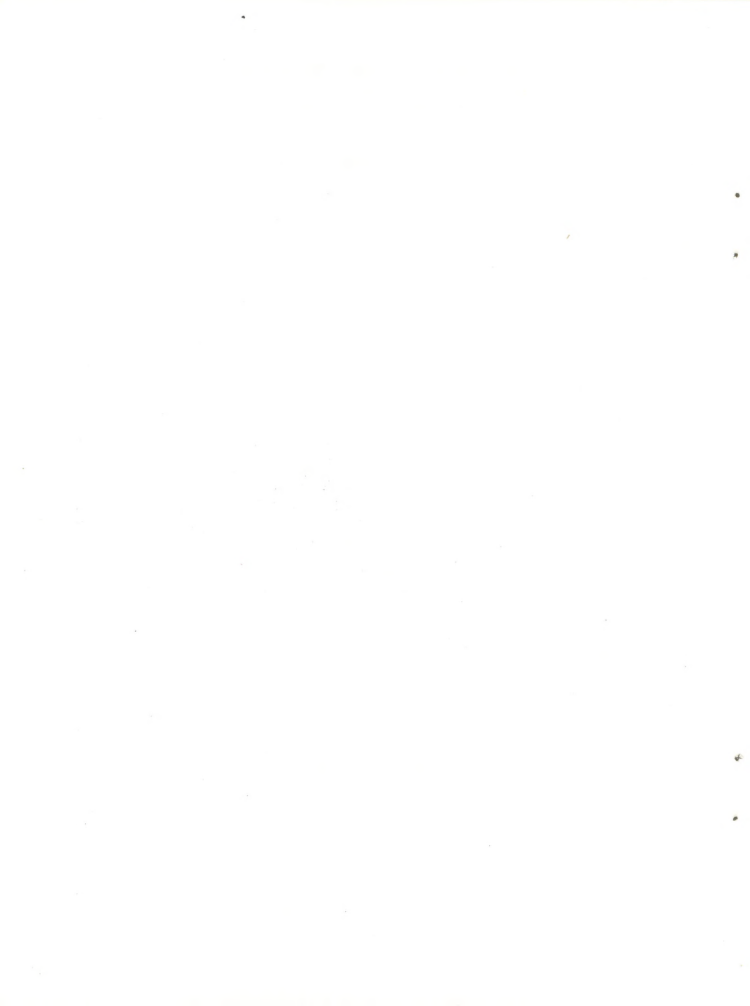
We shall be pleased to discuss this report in greater detail with you and your staff.

Sincerely yours,



David A. Hamburg, M.D.
President

Enclosure



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Social Security Studies
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J. Jerome WILDGEN, M.D., Physician and Surgeon, Family Medical Association, Inc., Kalispell, Montana

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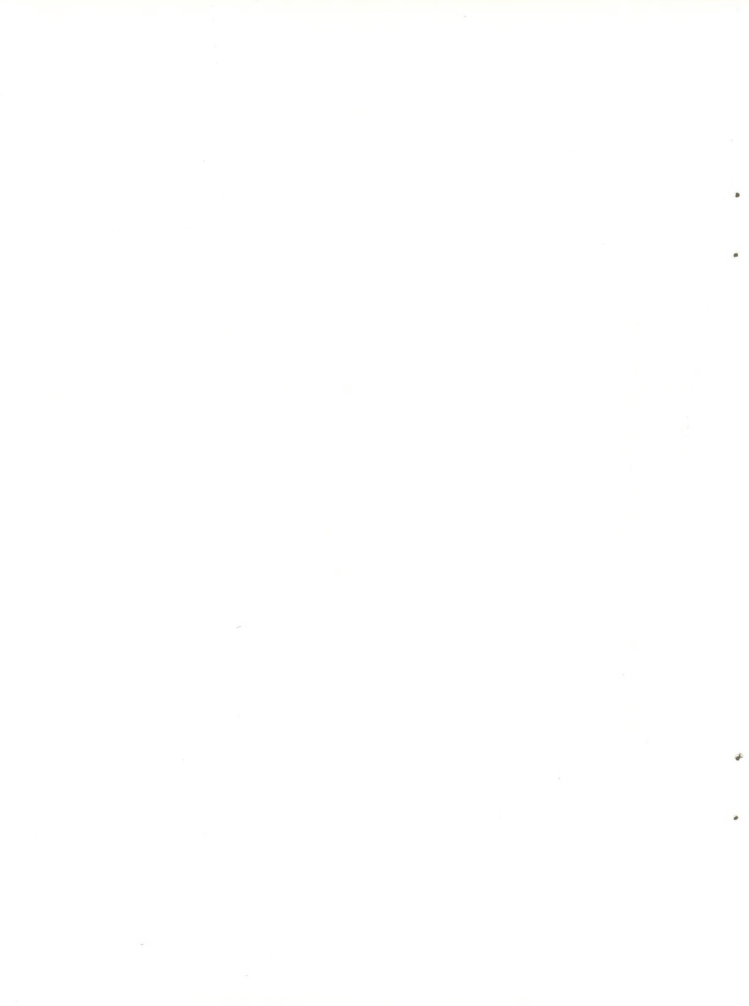
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*Assignments completed on or before 12/31/75



FOREWORD

In 1971 the Congress called on the Institute of Medicine, of the National Academy of Sciences, to conduct a study of the costs of education in the health professions. Following the successful completion of that study, under the distinguished chairmanship of Dr. Julius Richmond, the Congress in 1973 called on the Institute to conduct a study of the payment of physicians in teaching hospitals under Medicare and Medicaid and the effects of Medicare and Medicaid reimbursement on the specialty and geographic distribution of physicians and the training of foreign medical graduates.

This report is the response to that request. It has been prepared under the guidance of a steering committee of physicians, hospital administrators, and other knowledgeable individuals appointed by the President and Council of the Institute.

As Chairman of the Steering Committee, I must first express my gratitude to my fellow members who have been generous in their contributions of time and energy, wise in their counsels, and tolerant of each other's opinions. I am equally grateful to the members of our three advisory committees who have also given generously of their time and advice.

The study staff, under the direction of Ruth Hanft, who also directed the Institute's health care educational cost study, has been heroic in its devotion, stoic in its acceptance of extraordinary difficulties along the way, and socratic in its dialogue with the steering committee.

Lastly, I must express my gratitude, for myself and for my colleagues on the Committee, to the Social Security Administration for its cooperation throughout the study, and to the Congress for making possible this further inquiry looking to a better structure for teaching, learning, and patient care. We trust that the results of the study will merit their confidence.

Adam Yarmolinsky, LL.B.
Chairman

ACKNOWLEDGEMENTS

The study described in this report was broad and complex in scope and examined several difficult and interrelated issues that affect medical schools, hospitals, the beneficiaries of Medicare and Medicaid, health care consumers, physicians, and government program administrators.

To assure that all views on the issues were considered and that the widest expertise was drawn upon, many individuals were consulted; those who assisted in this study are too numerous for adequate individual acknowledgement.

The Institute of Medicine's study staff wishes first to thank the steering committee, whose members were always available to the staff for policy guidance and advice. They devoted many long hours to the study, reviewing the study design, the draft reports, and formulating the recommendations of the study.

Without the fullest cooperation of the hospitals that participated in the field studies, the data could not have been obtained. Faculty, administrators, house staff, and financial officers spent many hours in interviews with our staff and completing the questionnaires, as did the Medicare intermediaries and carriers. The professional associations which represent the medical and osteopathic schools and the teaching hospitals cooperated fully by urging their affiliates to participate.

Invaluable advice from the three advisory panels -- on teaching hospitals and physicians, specialty and geographic distribution, and foreign medical graduates -- contributed to an understanding of the issues in graduate medical education and patient care.

Special mention is due the participants in the modeling seminars who gave their time and expertise to the difficult issues of optimal specialty and geographic distribution.

The study group is appreciative of the efforts of the Department of Health, Education, and Welfare, the Social Security Administration, the Social and Rehabilitation Services, and the Health Resources Administration for providing background information, assisting in the design of data instruments, and in stimulating the staff and the committee to seek alternative approaches to the issues.

Most important were the efforts of staff members who overcame all conceivable and inconceivable barriers in meeting a very tight deadline.

Ruth S. Hanft
Study Director

PREFACE

In 1973, congressional concern about the conditions for payment of teaching physicians under Medicare and Medicaid, and the effects of such payments to physicians and teaching hospitals on patient care, graduate medical education, and the distribution of health care services led to legislation calling for a study to be conducted by the National Academy of Sciences. Section 15c of the Social Security Amendments of that year states that:

The Secretary of Health, Education, and Welfare shall arrange for the conduct of a study or studies concerning
(A) appropriate and equitable methods of reimbursement for physicians' services under Titles XVIII and XIX of the Social Security Act in hospitals which have a teaching program approved as specified in section 1861 (b) (6) of such Act, (B) the extent to which funds expended under such titles are supporting the training of medical specialties which are in excess supply, (C) how such funds could be expended in ways which support more rational distribution of physician manpower both geographically and by specialty, (D) the extent to which such funds support or encourage teaching programs which tend to disproportionately attract foreign medical graduates, and (E) the existing and appropriate role that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861 (b) (6) of such Act.

The specific origin of this legislation was problems with the methods used for the payment of physicians in teaching hospitals, as expressed in charge (A). The rest of the charges reflect concern about several broader health manpower issues.

A steering committee of the Institute of Medicine, National Academy of Sciences, was appointed to provide policy guidance and direction to the study staff; the recommendations are the recommendations of the steering

committee. Three advisory panels were established to provide technical assistance in the areas of teaching physicians and teaching hospitals, specialty and geographic distribution, and foreign medical graduates.

The data were gathered and analyzed by the staff of the Institute of Medicine.

INTERPRETATION OF THE CHARGE

The questions raised in the congressional charge are related to broader issues such as the financing and organization of health care and graduate medical education. In the recommendations, however, the steering committee has responded to the specifics of the congressional charge and remained as neutral as possible on the broader issues.

We have tried to make our recommendations on the choice between fee-for-service and cost options consistent with latitude for institutions to employ payment modes of their own choice, while minimizing the problems of payment that the Congress identified. We also wished to encourage experimentation with new modes of payment.

We have based our recommendations for reimbursement of costs associated with teaching or learning on the existing general framework for support of graduate medical education in the United States, recognizing that fundamental changes in that framework (for example, direct support for graduate medical education through capitation grants) might make some of our recommendations unnecessary and others inappropriate. And we have framed our analysis and our single recommendation on foreign medical graduates without making any assumptions as to the adequacy of the future supply of United States medical graduates or the quality of foreign medical graduate training.

ORGANIZATION OF THE REPORT

The report is in three parts:

- Part I is a summary of the study findings and the responses to the specific charges of Congress.
- Part II presents detailed findings; analysis of data collected in the study, including description of the graduate medical education programs in teaching hospitals; discussion of the methods of analyzing different ways to pay physicians who teach and provide patient care services;

effects of different methods of payment on institutions; factors affecting geographic and specialty distribution; determination of optimal physician supply; federal policies to affect improved distribution of physicians; and foreign medical graduates in graduate medical education programs.

- Part III contains technical appendices on the study methods (to be published in May 1976).

Chapter 1 of Part I of the report summarizes the findings, conclusions, and recommendations of the study on the payment of physicians in teaching hospitals. Options for payment of physicians in teaching hospitals are discussed with recommendations for future payment methods. Detailed data gathered in the field studies of 96 hospitals and data from the Institute of Medicine's National Survey Questionnaire, sent to 1,400 hospitals, provide the basis for the findings. A consistent method was developed to test the effect of the options analyzed and to be used in defining additional options. Chapters 1 through 6 of Part II contain detailed descriptions of institutional organization and financing of teaching hospitals and medical schools, teaching physician activities and compensation, organization of patient care in teaching hospitals, graduate medical education, discussion of the role of carriers and intermediaries, and an analysis of the impact of different payment options.

Chapter 2, Part I analyzes the influence Medicare and Medicaid payments may have on the geographic and specialty distribution of physicians. To respond to these charges, it was necessary to explore the potential methods and problems of determining "optimal" supply of physicians by specialty. Seminars were conducted for four states - Arizona, Oregon, Michigan, and Georgia - to determine the possibility of defining optimal specialty distribution. Participants were given information on demographic characteristics of the area, available health indicators, utilization data, national and international physician distribution information, and whatever physician productivity data were available. They explored the availability and usefulness of data in determining optimal distribution and made suggestions for methods of determining these distributions in the future.

The study group also analyzed economic and social factors that affect the concentration and distribution of physicians in the United States. Data from the field studies and National Survey Questionnaire provided the basis for the analyses of sources of support of training programs. A study of Medicare, Medicaid, and private insurance fees was undertaken to determine what relationships, if any, exist between fees and distribution of physicians. Chapter 2 of Part I summarizes the findings on specialty and geographic distribution; detailed analyses are in Chapters 7 through 10 of Part II.

Data were gathered and analyzed on the distribution and activities of foreign medical graduates in graduate medical training programs, and Medicare and Medicaid support of these programs. Chapter 3 of Part I summarizes these findings, discussed in detail in Chapter 11 of Part II.

NATIONAL SURVEY

A questionnaire survey of the nation's 1,400 identifiable teaching hospitals brought a response from 73 percent of them. Information was collected on characteristics, finances, and educational programs in teaching hospitals. It included patient payment status, number of house staff, support of house staff salaries, number of foreign medical graduates in training, medical staff sources of compensation and teaching activities, and contractual arrangements for physician services.

FIELD STUDIES

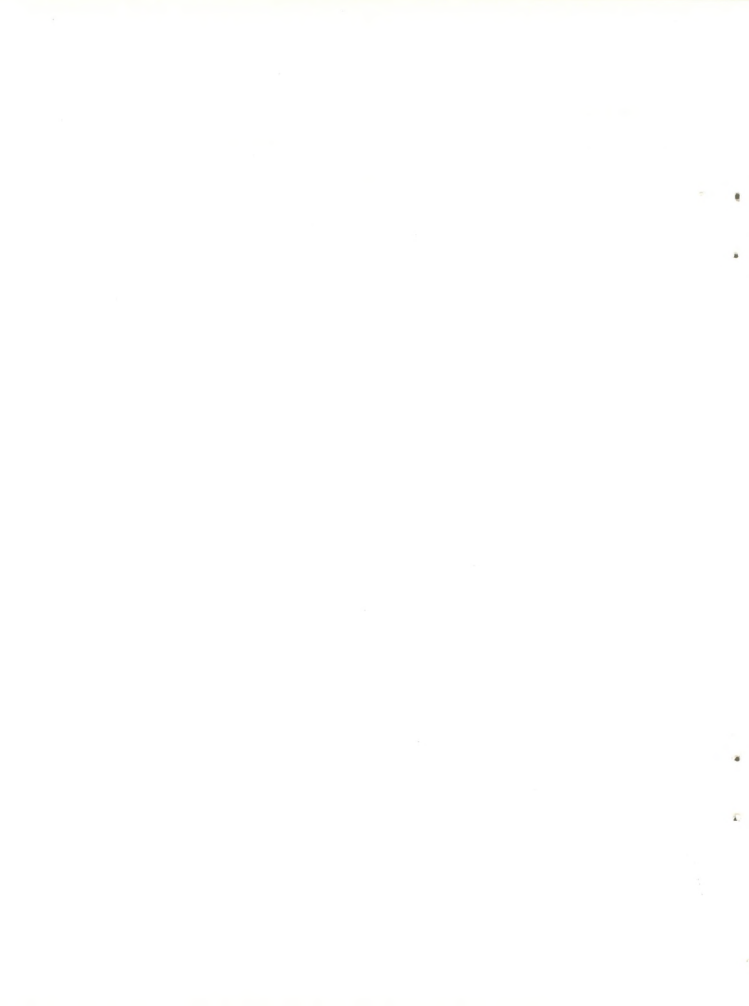
Site visits were made to 96 teaching hospitals, 15 of which were federal Veterans Administration hospitals; 15 medical schools; and two osteopathic schools, in addition to pretests in two medical schools and seven teaching hospitals. The field studies provided information about institutional organization and financing; house officer activities and support of graduate medical education programs; teaching physician activities and relationships with patients; billing and collecting arrangements; and compensation and employment agreements between physicians and the medical school or hospital. Field staff examined the organization and delivery of patient care, including admission into patient services; assignment of patients to physicians and patient care settings within the hospitals; patient payment status; systems used for billing patients and third party payors; and systems used for collection and distribution of revenues from patient care fees.

INTERMEDIARY AND CARRIER SURVEY

All intermediaries and carriers who administer Parts A and B of Medicare were surveyed for their definitions of teaching physicians and teaching hospitals, their interpretation of the Social Security Administration's current instructions concerning the reimbursement of teaching physicians, Intermediary Letter 372 (IL 372), and the frequency and methods of audit. Follow-up visits were made to a sample of carriers.

FEE SCREEN SURVEYS

The Social Security Administration (SSA) has developed data on prevailing fee screens for 39 procedures for all Medicare carriers. The Institute of Medicine, in cooperation with SSA, the Office of the Assistant Secretary of Planning and Evaluation, and the Medical Services Administration of the Social and Rehabilitation Services, collected similar data from most state Medicaid agencies. The Health Insurance Association of America made available its information about level of surgical fees paid by the major carriers within regions. Fee data were not available from the Blue Shield plans.



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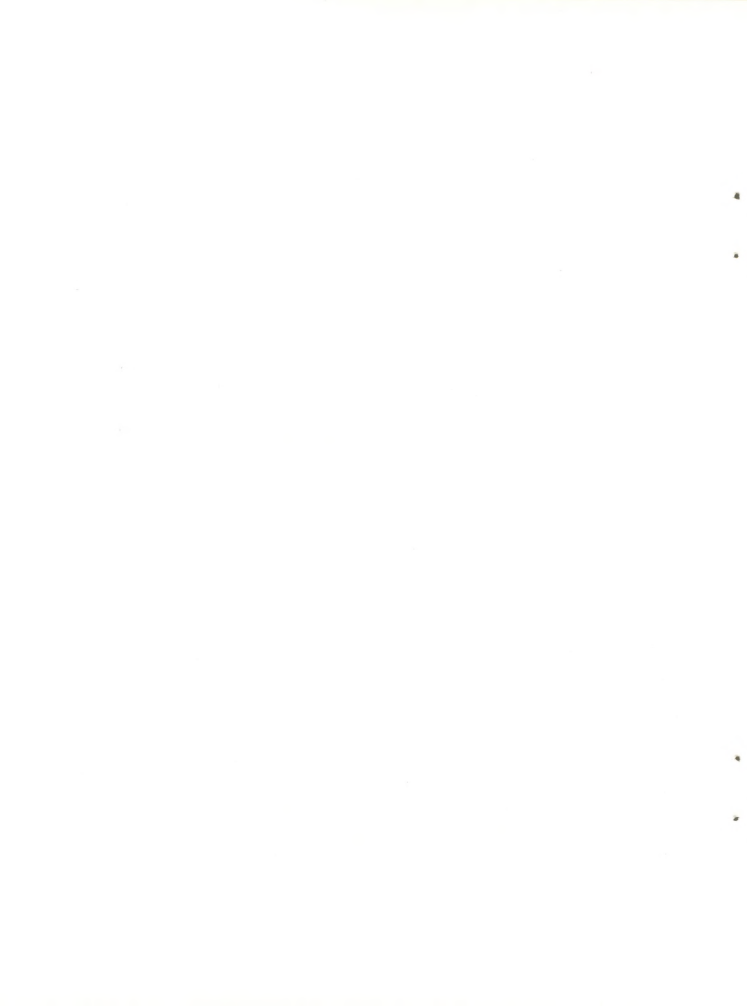
PART I - FINDINGS AND RECOMMENDATIONS

SUMMARY 1

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SUMMARY

Ever since the implementation of the Medicare program in 1966, there have been problems with its methods of payment for physician services in teaching hospitals. The Medicare payment structure is based on the long-standing model of separate billing by the hospital and the patient's physician. Medicare Part A, the hospital insurance program, pays hospital costs, including salaries of interns and residents, and supervising physicians participating in education programs in the hospital. Medicare Part B, the supplementary medical insurance program, pays for the services of the physician who is responsible for the care and medical decisions concerning any particular patient.

In teaching hospitals, the actual services and responsibilities do not correspond to the crisp distinctions implied by Part A and Part B. Teaching and patient care occur inseparably. Responsibility for the patient, medically if not legally, becomes shared among the teachers and the learners. The complexity of dividing payment between Part A and Part B for these indivisible services has been of mounting concern to the Congress, medical educators, and the Social Security Administration, which administers Medicare.

Several efforts have been made to ease the situation, but with only limited success. Instructions have been issued in an attempt to clarify the circumstances under which a teaching physician may be paid for personal and identifiable professional services to patients or for the supervision of such services when provided by interns and residents. The current policy is embodied in Intermediary Letter 372, promulgated in 1969.

An amendment to the Social Security law (Section 227) was enacted in 1972 in an effort to simplify the payment problem by establishing presumptions that, if met, would result in many hospitals being classified in their entirety as (1) hospitals in which the physician or hospital could bill for professional fees and (2) those that must be paid on a cost basis for professional services. The classification scheme entailed a professional test and a patient liability test. In other situations, Section 227

allowed physicians to bill on a fee basis for services to patients with whom they had a prior professional relationship. But before Section 227 was implemented, the Social Security Amendments of the following year, 1973, requested that this Institute of Medicine study be made of the Medicare payment system for physician services in teaching hospitals. Pending completion of the study, Section 227 was suspended.

The charges for this study, as stated verbatim in the preface, are concerned principally with determining appropriate and equitable methods by which Medicare and Medicaid can pay for physician services in teaching hospitals. However, Congress also asked for an examination of how the payments affect the distribution of physicians both by specialty and geographically, and how they attract foreign medical graduates to one type of training program or another.

In an effort to answer the principal congressional question, the Institute of Medicine study group sent a national survey questionnaire to the 1,400 identifiable teaching hospitals in the United States and conducted detailed field investigations of 96 teaching hospitals, 81 of them non-federal. The survey and field studies were designed to collect the most complete possible array of facts on teaching physicians, teaching hospitals, their variety of patients, their relationships with medical schools, the revenues created by teaching and patient care, and the various controls and uses for those revenues. These and more data were needed before the study group could consider the effects of present Medicare payment methods and anticipate what might be accomplished by making changes in those methods.

Capsule descriptions of the information gathered on teaching hospitals, and the study group's recommendations based on analysis of that information, immediately follow. After those will be found similar summary sections, each with recommendations, on specialty and geographic distribution of physicians, and on foreign medical graduates. A more detailed explanation of the findings and recommendations is contained in the body of the report.

TEACHING HOSPITALS

The teaching physician provides graduate medical education and patient care in the teaching hospital. Lacking a definition from legislative history or regulations, the study defines a teaching physician as a fully trained physician (therefore, not enrolled in a graduate training program) who is responsible for or directly engaged in patient care activities and is responsible for the instruction and supervision of interns, residents, or fellows.

The close interweave of education, research, and patient care in teaching hospitals means that teaching physicians spend much of their time in joint

activities, most commonly teaching in conjunction with patient care, which occupies 20 percent of total professional time of salaried hospital physicians. The principal student in joint teaching and patient care is the house officer (intern, resident, or fellow), more than 80 percent of whose time is spent in activities directly related to patient care.

A great variety of compensation arrangements exists between teaching physicians and hospitals or medical schools. Many teaching physicians are employees of the institutions. Others have contracts that stipulate specific services or amounts of time. Teaching physicians often have financial arrangements with more than one institution. Control of professional fee revenues ranges from solely institutional, in which case physicians are on salary or contract, to solely practitioner-run, in which case the physician bills and collects, and has no financial arrangement with the hospital. In between those extremes are faculty practice plans that receive and control fees at the level of the medical school, department, or hospital. Where they can be identified, professional fees make up 9.7 percent of gross revenue of public medical schools and 12.4 percent of gross revenue of private schools. Most of these fees are applied to faculty compensation.

House staff compensation, with few exceptions, is by salary from the hospital, medical school, or both. In the majority of hospitals studied, house officer salaries came from general patient care revenues. In some other instances, salaries came from state or local appropriations to the institutions.

The 96 federal and non-federal hospitals in the field study sample were classified in one of four ways according to their education ties with medical schools: (1) principal teaching hospitals, 32 of the sample, are those in which medical school clinical departments direct all aspects of graduate training programs; (2) graduate associated hospitals, 44 of the sample, have one or more training programs directed by medical school clinical departments, and may also have training programs independent of the medical school; (3) undergraduate associated hospitals, 10 of the sample, have a tie to a school only for undergraduate clinical training, and conduct their own independent graduate medical education programs; (4) independent hospitals, 10 of the sample, conduct only their own graduate medical education programs.

The type of hospital ownership--voluntary nonprofit, government, or proprietary--has a relationship to the type of patient population. To some extent, patients classify themselves by their choice of hospitals. Medicaid patients, by definition medically indigent, more often choose public hospitals. Medicare patients, whose shared quality is age or disability rather than indigency, more often go to voluntary nonprofit and proprietary hospitals.

Patients also are classified by the hospitals, usually on admission, according to a prior client relationship with the attending physician or their ability to pay. Their classification as "private" or "non-private" patients has a relationship to the profile of the hospital overall. Among the 81 non-federal hospitals of the sample, 23 had a patient population classified almost entirely as private; 20 others had almost all non-private, and 38 had proportions of both.

Hospitals with mostly private patients (1) were all voluntary nonprofit or proprietary, (2) without exception used fee-based methods of payment for physician services, (3) had physicians in control of professional revenues in 78 percent of the instances, and (4) included four principal teaching and three independent hospitals, the entire group having minimal involvement in graduate education--a median of five programs per hospital.

The 20 hospitals with mostly non-private patients (1) included 19 publicly owned, (2) included 11 that used a cost-based or compensation related method of payment for physician services, (3) had nine others that used fee-based methods but only six of those with physician control of professional revenues, and (4) included 10 principal, nine associated, and one independent teaching hospital--with a median of eight graduate programs per hospital.

The 38 hospitals with both private and non-private patients (1) included 29 of nonprofit-voluntary ownership, (2) had 35 using fee-based payment of physicians, (3) had physician control of professional revenues in 21 of those 35 instances, and (4) included 11 principal, 21 associated, and six independent teaching hospitals--with a median of 12 graduate medical education programs per hospital.

Patient classification also is a factor in the extent of a house officer's responsibility for patient care and the amount of supervision the house officer receives. House officers have more responsibility and less supervision by teaching physicians when they are taking care of non-private patients than they do with private patients.

The study group examined six existing or potential methods by which Medicare might pay for physician services in teaching hospitals. The methods are:

- conventional fee, the same system that applies to non-teaching physicians
- IL 372, the present policy used in determining eligibility of a teaching physician for a Medicare fee payment
- Section 227 "fee," the proposed stricter definitions of circumstances under which a fee could be paid to a teaching physician for services to patients

- Section 227 "cost," an option under which a teaching hospital may choose to receive cost reimbursement for teaching services
- unified payment, which would pay charges under Part B of Medicare for all physician services whether they were performed by a teaching physician or a house officer. Supervision by teaching physicians and house officer salaries would no longer be paid as part of hospital costs
- lump sum payment, a negotiated amount paid for specified services to a specified group of beneficiaries.

Each payment method was evaluated for its responsiveness to the congressional charges and its potential effects on teaching physician compensation and activities, institutional organization and financial support, graduate medical education, patient care, and program costs. The analysis indicated that no one payment method would constitute appropriate and equitable compensation in all teaching hospital circumstances, or could be applied universally without adverse effects on graduate medical education in the United States.

RECOMMENDATIONS (abridged)*

The steering committee has developed recommendations that recognize congressional concerns about appropriate and equitable payment of teaching physicians for professional services in teaching hospitals....Two recommended payment methods--a cost method and a unified method of payment--fully answer the concerns of Congress about proper payment for the type of care received. At the present time, however, neither fits the way in which graduate medical education is conducted in most institutions. It has been necessary, therefore, also to recommend incremental improvements in the more generally applicable method of fee payments to teaching physicians under Part B and cost-based payments for interns and residents under Part A. ...The steering committee believes that, for cost and unified payment methods to be fully effective, other third party payors would have to adopt them.

Recommendation 1. A Cost-Based Method of Payment*

The elective cost reimbursement payment method currently in effect under Section 15, Public Law 93-233 should be continued. Minor modifications are recommended...:

*See detailed Recommendations in Chapter 1.

- (1) Fee-based payment should be allowed in hospitals electing cost for special care units...that are open to the community.
- (2) The cost of physician services should reflect as closely as possible the full costs of providing the services.
- (3) Under the cost payment regulations issued under Section 15, Public Law 93-233, inclusion of payment of the imputed value of volunteer services should be continued....
- (4) Under the same cost regulations...The ceiling of \$30,000 on the imputed value of a volunteer teaching physician's services should be changed to the average salary for full-time physicians in the area or the VA compensation for full-time physicians if an area average is unavailable....

Recommendation 2. A Unified Method of Payment*

The unified method of payment is appropriate to institutions where there is a physician team approach to patient care and graduate medical education. Present knowledge and understanding of this method of payment suggest that it is responsive to the concerns of Congress and also appropriate to the ideals of graduate medical education. All services of licensed physicians (teaching physician and house officer) are paid out of Part B, except house officers who have not completed the first year of post-M.D./D.O. training (or second depending on state licensure requirements). Such house officers would be paid on a cost reimbursement basis to the hospital. The proposed conditions for this payment method limit its application to teaching institutions where there is a close relationship between teaching physician and house officer so that the conditions for personal and identifiable service are met by the team regardless of who actually performs the service....

Recommendation 3. A Fee-Based Method of Payment*

A fee-based method payment is appropriate for teaching physicians only when they provide personal and identifiable services to program beneficiaries or directly supervise the provision of such services by house officers....With one exception, the physician role test as described in the proposed Section 227 regulation is deemed appropriate as a test of whether personal and identifiable services are provided. The exception is the requirement for a pre-admission relationship between the physician and patient....Under this method, after two years, no cost reimbursement would be allowed for supervisory and teaching services in teaching hospitals....

*See detailed recommendations in Chapter 1.

Recommendation 4. Demonstration and Experimental Payment Methods

Three payment methods are recommended for demonstration and experiment in the Medicare and Medicaid programs. Each proposal for a demonstration or experimental payment method should include a plan for evaluating the payment method which includes its effects on the program beneficiary, the physician, the institutional provider, and the program itself:

- (1) The unified method of payment (Recommendation 3) with less restrictive conditions and criteria as may be proposed by physician groups or institutions and agreed to by the Social Security Administration on a demonstration and experimental basis.
- (2) The lump sum method used widely to provide payment for professional patient care services to specific patient groups, for example, crippled children under Title V, Maternal and Child Health Programs. This method of payment involves a negotiated contractual relationship between physicians or institutional providers and the payor....
- (3) A fee-based method under which licensed residents in family practice, general practice, pediatrics, and general internal medicine who have completed either the first year of post-M.D./D.O. training (or second year, depending on state licensure requirements) would be certified by the director of the training program as qualified to perform independently certain specified services or procedures in the hospital outpatient department. The resident could be paid for these services just as any fully trained physician would be.... There would be no cost reimbursement for salaries of these residents and no consultant fee paid for teaching.

Recommendation 5

Section 227 of Public Law 92-603 should not go into effect on July 1, 1976. Until new legislation can be enacted and attendant regulations issued, Section 227 of Public Law 92-603 should be further suspended and authority to continue cost reimbursement for physician services under Section 15, Public Law 93-233 should be extended.

Recommendation 6*

Administrative priority should be given to getting a more uniform application of the Medicare regulations and guidelines across the country....

*See detailed recommendations in Chapter 1.

Recommendation 7

To move toward more uniform treatment across programs, the recommended payment methods for teaching physicians should be given serious consideration by state Medicaid programs and other third party payors.

Recommendation 8

Proposals for future changes in the method of payment should be accompanied by "impact analyses," which would estimate the dollar differences to result from the change, the effects on the structure for receipt and control of professional service revenues, and the effects on the beneficiary, institutional provider and professional, and the health insurance program.

DISTRIBUTION OF PHYSICIANS BY SPECIALTY AND GEOGRAPHY

Congress asked about the extent to which Medicare and Medicaid payments support the training of medical specialists "in excess supply" and how the payments could be used to encourage a more rational distribution of physicians both by specialty and geographically.

There are great problems in trying to define what might be an appropriate supply of physicians among the various specialties or among all the communities of the nation. There is little agreement on the "needs" of a population for health care services. There is imperfect understanding of relationships among physician distribution and other components of the health care system, including its organization and financing.

The study group conducted a series of seminars to collect the judgments of experts as they experimented with methods of determining the optimal distribution of generalist and specialist physicians for several states of the United States. The results of those manpower seminars, together with a review of comparative data from other studies and an analysis of the compatibility of numbers of residency positions with present and future physician manpower goals, led the study group to some conclusions about the distribution of physicians and the influences toward one or another medical specialty, or one or another location in the country.

- Primary care appears generally to be undersupplied, and would benefit from an increase in the total number and proportion of "contact" physicians.
- Surgery appears to be oversupplied and should have no further increase in ratio of surgical specialists to population, which in effect, means limiting the number of physicians entering surgical specialty training.
- There exist identifiable geographic regions of contact physician shortage, which would benefit from increases in number of contact physicians and innovations in extending their services.

- A physician's choice of specialty is not adequately explained by expectation of lifetime earnings, is not made at any one particular time in the education process, is frequently changed, and is predisposed toward examples that the education process presents--greater specialization, less ambulatory care.
- Medicare and Medicaid payments support faculty and house officer salaries in teaching hospitals, and would seem to favor the present pattern of the education process--greater specialization--over the establishment of new training -- ambulatory care -- because of less favorable reimbursement provisions for outpatient care.

An analysis was undertaken of Medicare and Medicaid fees in relation to physician choice of location or specialty. Medicare and Medicaid payments accounted for 17 percent of payments to physicians in the United States in 1973. In general, it was found that prevailing charges and therefore, the general pattern of physicians' fees, tend to be higher in areas with high physician-to-population ratios. Other factors with which high Medicare fees are associated are concentration of hospital beds and medical schools, high income areas, large metropolitan areas and west coast counties.

RECOMMENDATIONS (abridged)*

Recommendation 1

The steering committee recommends that financing mechanisms be changed to provide more equitable support for ambulatory care services so that medical school and teaching hospitals would find it easier financially to support primary care training programs. Furthermore, Medicare and Medicaid monies might be used as an incentive to support the expansion of training opportunities in the contact physician specialties. The costs of residencies in the contact physician specialties should be excluded from provisions of Section 223 which place a ceiling on the allowed increase on costs to be covered by Medicare.

Recommendation 2

The steering committee recommends that direct support to medical schools and teaching hospitals through special project grants be continued.

Recommendation 3

A permanent quasi-public independent physician manpower commission of 13 members should be established by law to monitor the specialty distribution of physicians to determine the appropriate number of residency slots

See detailed recommendations in Chapter 2.

for each specialty. The enforcement of the commission's determinations would be the responsibility of the Liaison Committee for Graduate Medical Education, the Coordinating Council on Medical Education, and the American Osteopathic Association Committee on Postdoctoral Training through extension of their respective accreditation mechanisms, to control the number of residency positions in each training program....If, after appropriate consultation with the private sector, the Secretary of HEW finds that the commission's determinations have not been implemented within three years following the establishment of the commission, the Secretary should seek legislation to reconstitute the commission as a federal advisory committee to himself and to permit the withholding of Medicare and Medicaid funds from residency programs in specialties considered in excess supply by the commission.

Recommendation 4

The steering committee recommends that the following interim strategy for postgraduate physician training be implemented on July 1, 1977, and remain in force until the commission and the voluntary accreditation agencies have time to develop and implement a comprehensive physician manpower plan.

- (1) With the exception of the category of contact physicians, defined as family practice, general internal medicine, and general pediatrics, the number of all other postgraduate specialty training slots available as of July 1, 1977, should be held at the level of residency positions filled as of July 1, 1975.
- (2) The number of training slots for contact physicians should be expanded, with care given to ensure that the highest quality education environment is maintained.
- (3) There may be unusual circumstances which warrant an expansion of residency training slots in other than the contact specialties. Examples of these situations would include medical schools in the process of development or pending commitments to individual trainees.

Recommendation 5

A major study should be undertaken to re-examine the basis of physician fees and fee allowances in public and private health insurance programs.

Recommendation 6

The study group recommends that Medicaid practices which pay physicians at lower levels [in one geographic area than in another], particularly in underserved areas, be discontinued.

Recommendation 7

A detailed examination of Medicaid administrative practices should be undertaken to document the extent to which these practices affect the availability of physician services in underserved areas.

FOREIGN MEDICAL GRADUATES

The congressional charge for this study also asked for a determination of the extent to which Medicare and Medicaid payments "support or encourage training programs which tend to disproportionately attract foreign medical graduates."

United States medical education, and particularly its graduate programs, has had a steadily increasing influx of foreign-trained participants since the 1948 Smith-Mundt Act, which authorized exchange visas for citizens of other countries who wished to pursue educational opportunities here. In 1950, hardly 10 percent of the United States internships and residencies were occupied by foreign medical graduates. By 1975, one-third of the house officers in American teaching hospitals were foreign-trained and about one-fifth of all licensed physicians in the country were foreign graduates. During that 25-year period, the number of graduate training positions increased faster than the number of United States medical students who would fill them, while further changes in the exchange visitor education program and immigration laws made entry of foreign physicians easier than ever before.

The availability of approved graduate training positions to foreign medical graduates in the future, however, is expected to decline. Government incentives during the 1960s for an increase in American physician supply prompted an increase in the number and size of United States medical school classes. Projected numbers of the United States graduates indicate that by the mid-1980s they will fill almost all the currently existing graduate education slots. And the present total of slots may be greater than in the mid-1980s; the preceding recommendations of this report alone, as concerns a moratorium and monitoring for most categories of graduate medical education, pose a possible reduction in the number of approved programs. Lessened opportunities for foreign-trained physicians to enter graduate medical programs here also will reduce their eventual numbers in the fully licensed United States health system; most licensing bodies here require completion of graduate programs by foreign-trained physicians.

Although an overall diminution of opportunities for foreign medical graduates in the United States is readily discernible, an identification of programs that "disproportionately attract" them is a more complex undertaking and entails normative judgments. The study group examined the characteristics of programs and institutions to determine their

positions relative to national averages of foreign medical graduate concentrations. For the purposes of this study, these guidelines were established:

- A particular specialty is considered above the national average if the proportion of foreign medical graduates in training exceeds the proportion of foreign medical graduates in training in all specialties.
- A particular training program is considered above the national average if the percentage of foreign medical graduates exceeds the national average for that specialty.
- An institution is considered above the national average if more than 30 percent of its house staff are foreign medical graduates or if more than 38 percent of its training programs have foreign medical graduate percentages that exceed the national specialty average.

Categories of hospitals with the greatest concentration of foreign medical graduates above the national average were: state independent (69 percent), private independent (61 percent), local independent (60 percent), and private undergraduate associated and state undergraduate associated (both 59 percent).

In general, the more closely a hospital is affiliated with a medical school the less likely it is to have an above-average concentration of foreign medical graduates. Only 40 percent of the principal and graduate associated institutions have a foreign medical graduate concentration that exceeds the national average; 56 percent of undergraduate affiliated institutions and 60 percent of independent institutions have above-average concentrations.

Medicare and Medicaid support was not greatly different for institutions of high and low concentrations of foreign medical graduates. Information collected from United States medical graduates and foreign medical graduates in house officer positions indicates that to some extent the foreign-trained physicians occupy slots remaining after United States-trained physicians have made their graduate education choices.

RECOMMENDATION

In view of the decreasing number of positions likely to be available for foreign medical graduates and the possibility that future foreign medical graduates may not be able to get the graduate medical education necessary for full licensure in this country, the steering committee recommends the elimination of existing incentives for physician immigration, including the removal of medicine as a shortage profession under the Department of Labor's Schedule A.

Chapter 1

PAYMENT FOR TEACHING PHYSICIAN SERVICES IN TEACHING HOSPITALS

In the Social Security Amendments of 1973 (Public Law 93-233) Congress requested a study of:

Appropriate and equitable methods of reimbursement for physicians' services under Titles XVIII and XIX of the Social Security Act, in hospitals which have a teaching program as specified in section 1861(b)(6) of such Act...

The existing and appropriate role [of] that part of such funds which are expended to meet in whole or in part the cost of salaries of interns and residents in teaching programs approved as specified in section 1861(b)(6) of such Act.

This chapter discusses the policy concerns that led to these charges and summarizes the findings of the field studies and analysis that support the steering committee's recommendations. The chapter is divided into major sections about government policies for payment of teaching physicians, findings of the teaching hospital field studies, evaluating existing payment methods and their effects on sample institutions, and recommendations of the steering committee.

The focus of this part of the study is on the teaching physician, who provides graduate medical education and patient care in the teaching hospital. In 1975, more than 55,000 interns and residents were in graduate medical education programs. These training programs are based in the nation's 121 operating medical and osteopathic schools and 1,250 teaching hospitals, about one-sixth of all hospitals. Training is provided by physicians who may or may not be members of a medical or osteopathic school faculty. Because so much of graduate medical education is carried out by physicians who donate some portion of their professional time to teaching, the exact number of teaching physicians is unknown. Data from the American Medical Association, the Association of American Medical Colleges, and this study, suggest that one-fourth to one-third of the 300,000 physicians in the United States are involved in graduate medical education programs to some extent.

In non-teaching hospitals, physician services are usually delivered by an individual physician to an individual patient. In teaching hospitals, however, a team of house officers* and attending physicians cares for patients, in the course of which house officers receive their education and training. This training process is a continuation of clinical education which begins by the third year of medical school and ends in the completion of formal training one to eight or more years after receipt of the M.D. or D.O. degree. At each stage of training, the house officer gains greater independence, increases the scope of activities he is permitted to perform with less supervision, and trains and supervises more junior house staff.

GOVERNMENT POLICIES FOR PAYMENT OF TEACHING PHYSICIANS

Medicare Payment Policies

Medicare payment for patient care services in teaching hospitals is divided into two parts. Part A pays hospital costs of program beneficiaries (except for certain deductibles and coinsurance). Part B pays (with certain deductibles and coinsurance) for physician services. Since the outset of the Medicare program, reimbursement has been made to hospitals for the program's share of the cost of approved education programs, including internship and residency training programs, carried out in the hospitals. Medicare reimbursement to the hospital under Part A is based on costs and includes salaries, fringe benefits, and related support costs of house officers and the compensation paid by the hospital to physicians for their teaching and supervisory services.

Medicare payment for physician services to patients was based on the medical care delivery model represented by the independent, private practitioner. In non-teaching settings, patients usually are cared for by their own physician, and although he may use other specialists as consultants, he usually makes all medical decisions and is legally responsible for them. The patient may be referred to a specialist, who admits him to the hospital, treats him, and assumes responsibility for making medical decisions. In either case, responsibility for making decisions about the patient's treatment is that of the attending physician, and Medicare pays the physician fees under Part B.

In a teaching setting, the attending physician may delegate some responsibility for patient care to house officers, but he retains legal responsibility for the patient. Since shared responsibility is the basis of graduate medical education, the issue of Medicare reimbursement for teaching physician services has focused, since 1969, on definition of the circumstances under which a teaching physician may be paid a fee for his medical services which does not duplicate other reimbursement. As Social Security

*Includes interns, residents, and fellows.

Administration policy has evolved, criteria required for payment of reasonable charges in the teaching setting have come to resemble those which exist in the non-teaching setting.

There is no indication that the special characteristics of medical care delivery in the teaching setting were considered as the original Medicare law was being written. The law and the legislative history made clear, however, that payment for physician services (other than those of interns and residents) to patients has to be on a reasonable charges basis under Part B of the program. The policy adopted (embodied in 1969 in Intermediary Letter 372) was that although reimbursement for teaching and supervisory functions of a physician, as well as the salaries of interns and residents, was made on a reasonable cost basis to the hospital, the same physician could be paid on a reasonable charge basis if he rendered either "personal and identifiable" services to the patient or was the patient's "attending physician" and provided "personal and identifiable" direction to the interns and residents who treated his patient.

In the context of graduate medical education, this is a somewhat artificial distinction, since the patient may be cared for by several physicians at various stages of their training, including the attending physician who has formal legal responsibility for his care. The difficulty of making these distinctions has led to congressional concerns about possible abuses of the program. These concerns were summarized in the Senate report accompanying the 1972 Social Security Amendments:

It has proved to be difficult to achieve effective and uniform application of present policies to the large number of widely varying teaching settings. In some cases, charges have been billed and paid for services rendered in teaching hospitals which clearly did not involve any degree of teaching physician participation. In some cases charges were billed for the services that residents and interns rendered in every case where a supervising physician had overall responsibility for their actions, even though he may not actually have become involved in the patient's care. In other cases, charges for covered services were billed in amounts that were out of all proportion to the covered service or the charges billed to other patients. 1/

Thus, congressional concern about payment of teaching physicians for direct patient care services to Medicare beneficiaries in the teaching hospital has two origins: the original Medicare physician payment model was designed to fit other modes of medical care delivery; and under the legal structure of the Medicare program it is necessary to divide a single activity -- simultaneous patient care services and teaching -- so that each part can be paid to the proper party and from the appropriate financial source.

The Application of Present Policy

IL 372 spells out current policy for paying teaching physicians for medical services to Medicare beneficiaries. Since a great deal of patient care in a teaching hospital is provided by interns and residents whose salaries are paid for under Part A of Medicare, the problem IL 372 addresses is the circumstances under which it is reasonable to pay a fee to a teaching physician. A charge can be made by the teaching physician for identifiable, personal medical services to a patient or for the direct supervision of such services by house officers if the teaching physician meets the criteria established in IL 372 for determining that he is the "attending physician." If he cannot meet these tests, it is assumed that the care is rendered by the interns and residents and fully reimbursed under Part A, and that the teaching physician's role is that of the teacher and supervisor rather than personal physician.

Although documentation in the medical record is the only feasible way, other than direct observation, to determine whether personal and identifiable services were provided by a physician, audits of medical records have limitations. From the record, the auditor cannot determine with certainty (1) whether the physician was present and actively involved in the delivery of the care; (2) whether the physician carefully or cursorily reviewed the patient's progress and treatment plan; or (3) when the notes, comments, and signatures in the record were actually entered.

Differences in the carriers' interpretation of the documentation required in a medical record and whether it demonstrates that the IL 372 criteria were met have resulted in inconsistent application of the guidelines across the country. In some places guidelines are rigidly interpreted and enforced, and not in others.*

Proposed Section 227 Regulations

Because of the difficulties of implementing and enforcing IL 372, the 1972 amendments (PL 92-603) to the Social Security Act included in Section 227 changes that were designed to simplify the problem of paying for the medical services provided by teaching physicians to program beneficiaries.

The main objectives of the new legislation were to establish a series of presumptions about the reasonableness of charging professional fees by teaching physicians for the entire beneficiary load in the hospital or in a part of a hospital; to avoid payment at usual and customary levels of the teaching physicians for patient care services if the services were actually rendered partly or entirely by interns and residents; and to allow payment for professional services by teaching physicians on a usual and customary level for their own patients regardless of the hospital or setting in which the care was given, unless the hospital, with the consent of all physicians

*For a more detailed discussion of carrier and intermediary administration see Chapter 5, Part II.

performing services in the hospital, decided to elect a cost method of reimbursement for physician services in that hospital.

The regulations implementing Section 227 as published in preliminary form in the Federal Register would have supplanted the principles of IL 372 and substituted the right to charge on a fee-for-service basis only for services by teaching physicians to "private patients." Tests were set out which, if met, would have made all beneficiaries in a particular hospital private patients, or if the same tests were met for a distinct part of the hospital, beneficiaries in that part would all be considered private patients.

For the purpose of these presumptions, the proposed regulations required that for all patients in a hospital or a setting within the hospital to be considered private patients, it was necessary that the requirements in either Test A or Test B be met.

Test A

All of a hospital's inpatients or outpatients will be deemed to be private patients if the hospital establishes that during a 2-year period ending December 31, 1967, and each year thereafter: (A) all the patients have been regularly billed by the hospital for services rendered by physicians; (B) reasonable efforts have been made to collect in full from all patients; and (C) charges (including applicable deductibles and coinsurance) have been regularly collected in full or in substantial part [later defined as 75 percent] from at least 50 percent of all patients.

Test B

All of the patients in a hospital or hospital setting will be deemed to be private patients during a hospital accounting year if: (A) at least 85 percent of the patients in the setting [have the specified relationship with their personal physician]... (B) it can be shown that during a representative period of at least 4 consecutive months during the previous hospital accounting period, 50 percent or more of the patients in the setting paid the billed physician fees [in full or substantial part--later defined as 75 percent] from sources other than public medical assistance programs; ... [for Medicare patients, the same rules apply to the payment of deductible and coinsurance amounts,] (C) ability to pay was not a factor in deciding the status of the patients inside the setting or the services provided by various types of practitioners (for example, ability to pay had no bearing within

the setting on the assignment of accommodations, or in the respective roles played by residents, interns, and the personal physician in patient care); and (D) assurance is provided that the foregoing requirements will continue to be met in subsequent accounting periods and appropriate arrangements have been made to notify the intermediary as soon as it appears that the foregoing requirements may not be met for any accounting period. 2

The proposed regulations also provided that a hospital could, with the agreement of all physicians with admitting privileges in the hospital, elect to be on a cost basis. Salaries and related support costs of physician services would be paid under Part A for services to Medicare beneficiaries; no physician charges for such services would be permitted. If it did not so elect and did not meet the presumptions previously discussed which made all patients in the hospital private patients, whether or not charges could be made by a teaching physician in a particular case would depend on:

- the relationship between that physician and a particular patient in non-emergency cases; for example, was the physician the patient's personal physician prior to admission, and
- whether, in addition, the particular physician had charged at least 50 percent of his other patients in the same setting and attempted to collect bills, including coinsurance and deductibles, from them.

This was a much stricter individual test for a patient-physician relationship than in IL 372 because of the prior relationship requirement and the requirement that 50 percent or more of the physician's other patients in the same setting be billed. Thus, in practice, whether a teaching physician could be paid on a charge basis often would be determined by the presumptive rules applying to all the patients in a hospital or a particular setting within a hospital.

Under Section 227 of PL 92-603 as modified by Section 15 of PL 93-233, hospitals that elect to be on a cost basis have had all physician services paid for on a cost basis for cost accounting periods beginning on or after July 1, 1973. As of January 1, 1976, twenty-seven teaching hospitals had elected this method of payment.

Medicaid Payment Policies

Although the Medicaid regulations originally required states to follow the Medicare policies covering cost reimbursement to hospitals, they are now allowed to follow other cost-based methods. However, amounts paid for physician services, including the services of teaching physicians, have always been determined by the states and differ from state to state. In some states, physicians who receive a part or full salary from state university medical schools or state-owned hospitals cannot bill fees

under Medicaid. Some states follow the Medicare practice of paying physicians their customary charges up to the prevailing charges as defined under Medicare; others follow private insurance policies, which have more generous limitations on customary charges; more often the states pay below the Medicare level. Frequently, however, Medicaid uses a uniform fee schedule well below the market rate for all physicians, including teaching physicians. Non-payment and low-payment of teaching physicians may limit the access of Medicaid clients to certain physicians.

Because Medicaid typically reimburses directly to the hospital for the costs of interns and residents and makes payments to teaching physicians separately, there are the same potential payment problems as under Medicare.

Other Payment Practices

Two less-used and less-known ways of paying for physician services under other government programs are the "unified" and "lump sum" payment methods.* The former is used only in the Medicare program to pay for certain physician services in a small group of teaching settings and the latter is used more broadly in government programs to purchase covered services for client groups from non-teaching as well as teaching physicians.

In its complete form, the "unified" payment method would pay for services of teaching physicians and house officers in cases where the latter are employees of a physician organization rather than a hospital. Payment for services would be made on a per capita, per diem, or fee-for-service basis regardless of who provided the service. There would be no payment under Part A. Currently, Medicare occasionally uses a similar payment method. For example, at a large midwestern clinic, Medicare makes no cost reimbursement for the services of either interns and residents or for the supervisory and teaching services of physicians. Charge payment for the services of the clinic's physicians in the two hospitals in which they practice is made solely for their personally rendered and "attending physician" services. This is because the costs of intern and resident salaries, as well as the full compensation of the physicians, are borne by the clinic and thus are not reimbursable to the hospitals. A somewhat different situation exists in other places. These and other modifications were instituted at these medical centers to accommodate longstanding historical variations in the financial arrangements for house officers. In these cases, all physicians are paid salaries and the physician organization receives and controls the expenditure of all professional service revenues. The physicians' practice is limited to one or two hospitals, and the physician group provides a broad spectrum of specialty and subspecialty services. In current practice, however, payment on a charge basis is made for the services of house officers only outside the hospital setting in clinics owned and operated by the physicians which are apart from the hospital and where the house officers are licensed physicians.

*See Chapter 6, Part II, for further discussion.

The "lump sum" payment method is used by the Maternal and Child Health Program (Title V) and by many state and local governments to provide physician services to specified client groups, for example, crippled children. It entails a negotiated agreement between the payor and individual physicians, physician groups, or institutions. The agreement establishes the services to be provided, the amount of payment, who will provide the services, and describes the client group without necessarily specifying the population of the group or the services to be provided to its members.

FINDINGS FROM THE FIELD STUDIES

Data collected in field studies in 17 medical schools and 81 non-federal hospitals during the spring of 1975 provide the basis for the evaluation of existing payment methods and assessment of the recommended payment methods. The findings* describe: who are teaching physicians; what teaching physicians do; what are the compensation agreements between teaching physicians and teaching hospitals and medical schools for receipt and control of professional service revenues; what are the amounts, sources and uses of professional fees generated by teaching physicians; and what are teaching hospitals?

Teaching Physicians**

"Teaching physician" is not defined explicitly in either the legislative history or in regulations. The study group based its definition on the activities of physicians rather than on where they are employed or practice. In this study, a teaching physician is defined as any fully-trained physician (M.D., D.O., or oral surgeon D.D.S.) not enrolled in a graduate training program who:

- is responsible for or directly engaged in any patient care activities performed by a physician; and
- is responsible for the instruction, supervision, or both of interns, residents, or fellows.

Of the 19,000 physicians with admitting privileges in the 81 non-federal sample hospitals, 15,000 are teaching physicians. Hospitals may not have teaching programs in each service and most do not have closed physician panels. Thus, all physicians with admitting privileges in teaching hospitals are not teaching physicians. Government payment policies, if applied to physicians in teaching hospitals on a hospital-wide basis, may be inappropriate for many physicians.

*The studies from which these findings were developed are reported in detail in Chapters 1-6, Part II.

**For a more detailed description, see Chapter 2, Part II.

Teaching Physician Activities

Although the study group defined a teaching physician in terms of two of his major activities -- patient care and teaching of house officers -- many teaching physicians also spend time in other professional activities: teaching of undergraduate medical students, research, professional development, and hospital or medical school administration. The process that produces education, research, and patient care in teaching hospitals, requires that teaching physicians spend much of their time in multi-purpose, or joint activities. A common example of this type of activity is rounds, during which care is rendered to patients by a team which may include teaching physicians, house officers, medical students, and sometimes nursing or allied health students. The students learn while observing and participating in patient care; two major activities of teaching physicians, teaching and patient care, are taking place simultaneously.

Another example of joint teaching and patient care is in the outpatient setting, where the teaching physician diagnoses and treats patients with house officers or other students present. Still another is the teaching radiologist and radiology resident reviewing x-rays together. Most of graduate medical education consists of this interaction of teaching physicians and graduate medical trainees in the course of providing patient care. Twenty percent of the total professional time of full-time teaching physicians is spent in this kind of interaction in joint teaching and patient care. (This amounts to 47 percent of their total patient care time.) Forty-five percent of their activities can be identified as teaching (10 percent), patient care (20 percent), or research (15 percent), and the remaining 35 percent is in administration, professional development, and other activities.

The "student" in this joint teaching and patient care activity is the house officer. In the sample hospitals, house officers spent 84 percent of their time in activities directly involving patient care. Only 10 percent of house officer time was reported as purely educational time away from patients and included, for example, time spent at seminars, lectures, and library work. The remaining six percent of their professional time was spent exclusively in teaching, research, and administration.

Receipt and Control of Professional Service Revenues

A central element of the arrangement between a teaching physician and an institution, whether school or hospital, is control over professional fees. In all cases, there is an explicit agreement between the physician and the institution about the collection and use of fees. The agreement may give him complete control over the collection and expenditure of fees; or it may require him to give up some or all of this control. In some institutions, each physician has a separate agreement and he may control the collection and use of fees much as a physician in private practice. In other institutions, there are hospital or faculty practice plans that collect and spend fees. Under such plans, a portion of their revenues is returned to the physician and a portion is used for other purposes.

Compensation arrangements between teaching physicians and hospitals and medical schools vary. Many teaching physicians are employees of these institutions; others have contractual agreements covering specific services or time; still others have no financial arrangements with any institution. It is not uncommon for a teaching physician to have financial arrangements with more than one institution.

Professional service revenues are handled several ways in the 81 non-federal sample institutions. Some hospitals receive and control professional service revenues whether they are paid on a cost or charge basis. Faculty or hospital practice plans may receive and control professional service revenues at one of three levels: the medical school, the department, or the hospital (by service or for patient groups based on source of payment). In many hospitals, physicians independently receive and control professional service revenues.

Hospitals which receive reimbursement for physician services on a cost or compensation-related basis* have sole control over these revenues and usually include them as part of their general patient care revenues. In these hospitals, the physicians are under contract for patient care services or are direct employees. Thus, there is an identifiable professional service expense. In 16 of the sample hospitals, professional service revenues for all patients are handled under this kind of arrangement.

In some cases, the hospital receives and controls professional fees under a fee-based method of payment. At five hospitals in the sample, the hospital bills and collects for professional services carried out by the physician group and expends these revenues, in part for physician salaries. Since those fee payments are part of the hospital's general revenues, any change in the amounts received will affect the total revenues available to the hospital.

In nine of the sample hospitals, fees for the professional services of teaching physicians are received and expended by a faculty practice plan which operates under the auspices of the medical school. For the most part, these revenues are used to support clinical faculty salaries, with small amounts going to support other institutional activities, such as basic science and graduate medical education. In seven of the sample

*Only 27 hospitals have elected the cost payment method authorized in Section 15, PL 93-233. These are typically government-owned hospitals which employ physicians and pay them a salary. A larger group of hospitals not on cost, including three sample institutions, receive payment for physician services on a "compensation-related charge basis." For example, if a physician is paid \$50,000 per year by the hospital for his full-time services and 50 percent of his time is to be spent in patient care, then Medicare will pay charges from Part B based on the \$25,000 compensation related to direct patient care.

hospitals, control over the collection and expenditure of professional fee revenues is at the medical school department level. Decisions about the use of these revenues, therefore, are likely to be narrower than in those hospitals where a medical school practice plan receives and controls professional service revenues. In five of the hospitals, hospital practice plans receive and control professional service revenues.

Finally, there are many cases in which neither the hospital nor the medical school receives and controls professional service revenues. In the conventional pattern of independent private practice, the physician or a group provides the professional services, generates the bill, and collects and expends the revenues. Any association of the physicians with institutions is voluntary and there are no fiscal ties. Under this arrangement, decisions about the collection and use of fee revenues are not under the control of hospital or medical school or necessarily influenced by their general goals. Individual physicians independently control professional fee revenues in 46 of the 81 non-federal hospitals in the sample.

Role of Professional Fees in the Financing of Teaching Institutions

The ability to generate fees and produce income from patient care services makes it possible for many physicians to participate in teaching, whether on a volunteer, part-time, or full-time basis. Depending on the relationship of the physician to the institution, professional fee earnings support the institution directly or indirectly. Indirect support is important since the physician's willingness to volunteer his time to teaching programs may be conditioned by his ability to earn an income through the fees he can generate. Even if there is a faculty practice plan, volunteer faculty outside the plan bring their patients and teaching skills to the hospital and contribute to its overall support, as well as its teaching programs. Loss of the services and patients of these physicians would limit the scope and depth of the teaching programs, reduce patient care revenues to the hospital, and could cause some hospitals to employ physicians directly to provide needed patient care and teaching services.

Professional fees generated by teaching physicians are also an important direct revenue source for some teaching institutions, particularly medical schools. In a few cases, professional fees go directly to the medical school or the hospital. More often, they go to the individual physician or are collected by one or more practice plans. Data at the institutional level on total professional fee revenues are generally incomplete; even when totals are known, the sources of payment are not. Clinical faculty in the sample medical schools generated a minimum of \$60.7 million in professional fees* in fiscal 1974. Of this total, \$53.2 million was

*Included in this figure are all fees controlled or monitored by the institutions. In seven of the schools, faculty earned fee income that was not known to the institution and for which complete data are unavailable.

generated by faculty at ten schools. This amount includes all fees generated at those schools. The amounts range from about \$200,000 at one school to \$10.4 million at another. In most cases, less than 30 percent, a little less than the national average, of total professional service revenues came from Medicare and Medicaid (Table 1).

Where they can be identified, professional fees make up 9.7 percent of public medical school and 12.4 percent of private medical school gross revenues from all sources. The majority of professional service revenues are used for faculty compensation (Table 2). The proportion is somewhat higher for public than for private medical schools in the sample. These funds are also used for faculty travel, equipment, and support staff. Few schools use professional service revenues to pay house officer salaries, although some pay for house staff secretaries, educational travel, and books. House staff compensation may come from the hospital, the medical school, both, or from an outside agency. With few exceptions, house officers are on a salary and do not bill fees for patient care. In most sample institutions, the hospital pays house officer salaries from general patient care revenues. In some cases, house officer salaries are paid from direct state or local government appropriations to state medical schools or teaching hospitals or from fee revenues generated by teaching physicians. House officers at advanced levels of training may be supported from faculty research grants or contracts or through direct grants and fellowships.

Under the Medicare and Medicaid procedures for computing reimbursement of hospital costs, house officer salaries and fringe benefits are included as allowable costs. The programs pay their proportionate share of these costs related to their share of inpatient service costs in the hospital. Outpatient service costs are handled differently; Medicare pays 80 percent of the cost of services from Part B and the beneficiary pays 20 percent of the charges as coinsurance. Although Medicaid payment practices for outpatients vary from state to state, in general the amount of payment is less than that paid by Medicare for each unit of service, but the payment for outpatient care may be on an encounter basis and the range of covered services may be greater under Medicaid than under Medicare.

Teaching Hospitals*

The activities of teaching physicians, their control over fee collection and distribution, and the amounts, sources, and uses of professional fees are influenced in large part by the following factors:

- ownership of the teaching hospital;
- extent of hospital association with a medical school;
- hospital patient classification (by ability to pay); and
- patients' pattern of seeking physician services.

*For a more detailed description, see Part II, Chapter 1.

TABLE 1. MEDICARE AND MEDICAID PROPORTION OF PROFESSIONAL FEES
GENERATED BY MEDICAL SCHOOL FACULTY PHYSICIANS (FY 1974)

Medical school type	Total professional fees generated <u>a/</u> (\$millions)	Medicare fees generated (percent)	Medicaid fees generated (percent)	Total Medicare and Medicaid fees generated (percent)
Public				
A	8.2	12	12	24
B	4.0	20	12	32
G	5.3	NA	NA	NA
N	5.6	10 <u>b/</u>	5 <u>b/</u>	15
P	5.8	14 <u>b/</u>	14 <u>b/</u>	28
Q	.2	NA	NA	NA
Private				
C	4.2	14	11	25
	1.5 <u>c/</u>	NA	NA	NA
D	2.8 <u>d/</u>	NA	NA	12 <u>e/</u>
E	5.1	NA	NA	NA
J	10.4	NA	NA	NA

Source: Institute of Medicine field data.

a/Figures include all fees generated by faculty physicians, whether those fees accrued directly to the physicians, to the medical school, to a hospital, or to some combination of the three. Only the ten sample schools for which data are complete are included.

b/Estimated.

c/This amount was generated by hospital-based departments; the Medicare and Medicaid portions are not known.

d/FY 1975; this is a more representative figure than the one for FY 1974.

e/This percentage is a low estimate.

NA=Not available.

TABLE 2. EXPENDITURES FROM PROFESSIONAL FEE REVENUES, MEDICAL SCHOOLS,
FY 1974 (percent)

Medical school type	Total	Billing and admin- istration	Clinical faculty compen- sation	Faculty fringe benefits	House officer salaries	Other expen- ditures
Public						
A	100	10	75	3	3	9
B	100	6	69	10	0	15
N	100	2 <u>a/</u>	55		3	40
P	100		56	0	3	41
Q	100	5	0	22	0	73
Private						
C	100	8	51		0	41
D	100		53	7	0	40

Source: Institute of Medicine field data.

Note: Blanks show that these expenditures are made from fee revenues, but the amount is unknown and is included with "Other." Zeroes mean that no expenditures are made.

a/Central billing costs only; many physicians do their own billing and some departments bill. These expenses cannot be identified.

In this study, a teaching hospital is defined as the site of graduate M.D., D.O., and D.D.S. training in programs approved by the American Medical Association, the American Osteopathic Association, and the American Dental Association. In these hospitals, house officers are involved in the delivery of medical care to patients under the supervision of physicians.

Teaching hospitals tend to be organizationally, and often physically, clustered around medical schools. The 81 sample hospitals could be grouped into four categories:

- "Principal" teaching hospitals are those in which the medical school clinical departments direct all aspects of all the graduate training programs in the hospitals. Thirty-two of the sample hospitals are principal teaching hospitals.
- "Graduate associated" teaching hospitals are the sites of training programs directed by medical school clinical departments and may additionally have training programs independent of the medical school. Forty-four of the sample hospitals are graduate associated teaching hospitals.
- "Undergraduate associated" teaching hospitals are involved with medical schools only for undergraduate clinical training and carry out independent graduate medical education programs. Ten of the sample hospitals are in this category.
- "Independent" teaching hospitals conduct their own graduate medical education programs. Ten of the sample hospitals are independent hospitals.

Teaching hospitals are owned by voluntary nonprofit organizations; federal, state, and local governments; and proprietary groups. Some are operated to serve specific patient populations; for example, the Veteran Administration hospitals, although most serve more general patient populations. Voluntary nonprofit and proprietary hospitals tend to serve patients who go to individual physicians or physician groups when they require medical services -- these patients are generally regarded as private. Public hospitals, particularly county and municipal hospitals, tend to serve patients who go to the institution for medical services -- these patients are generally classified as non-private. Many hospitals, public and voluntary nonprofit, serve both kinds of patients.*

If patients are classified in the hospital as private and non-private, classification usually takes place during admission and is based on whether the patient had a relationship with a physician before admission to the hospital or on the patient's ability to pay. The majority of patients, however, in effect classify themselves by their selection of a hospital or a physician for their source of medical services. It appears

*For a more detailed discussion, see Chapter 3, Part II.

that Medicare beneficiaries, who will pay deductibles and coinsurance from non-public sources, are being seen in voluntary nonprofit and proprietary hospitals. Medicaid clients and Medicaid-eligible Medicare beneficiaries (18 percent of all Medicare beneficiaries) continue to make up a large portion of patient days in public hospitals.

The 81 non-federal hospitals in the sample were grouped according to how their patients were classified. In 23 of the sample hospitals, almost all patients are classified as private. In 20 hospitals, almost all patients are classified as non-private. Thirty-eight of the sample hospitals have both types of patients.

A house officer's responsibility for patient care and the level of supervision he receives vary according to whether patients in a particular hospital, or setting within a hospital, are private or non-private. House officers who see non-private patients have more responsibility for patient care in inpatient settings than do house officers who see private patients. House officers in hospitals with private patients and in mixed settings in hospitals which have both private and non-private patients receive more direct supervision from attending physicians than do house officers in hospitals or hospital settings with non-private patients.

Although the sample institutions vary, there are characteristics of ownership, educational association, patient care classification, arrangements for handling professional service revenues, and involvement in graduate medical education in the 81 non-federal sample hospitals that result in the following groupings:

In the 23 sample hospitals where almost all patients are classified as private:

- all are voluntary nonprofit or proprietary hospitals;
- all use fee-based methods of payment;
- in 78 percent of these hospitals, physicians independently control their professional fee revenues;
- four are principal teaching hospitals in pediatrics or psychiatry and three are independent hospitals; involvement in graduate education is minimal, with a median of five programs per hospital in this group.

In the 20 sample hospitals where almost all patients are classified as non-private:

- 19 are publicly owned, 13 by city and county governments;
- 11 use a cost-based or compensation-related charge method of payment for physician services;
- nine use fee-based methods of payment and three of those hospitals control the distribution and use of professional fee revenues;
- 10 are principal teaching hospitals, nine are associated teaching hospitals, and one is an independent teaching hospital; these hospitals have a median of eight graduate medical education programs.

In the 38 sample hospitals with both private and non-private patients:

- 29 are nonprofit voluntary hospitals;
- 35 use fee-based methods of payment and in 21 of these 35 hospitals, physicians independently control professional fee revenues;
- 11 are principal teaching hospitals, 21 are associated teaching hospitals, and six are independent teaching hospitals; there is a median of 12 graduate medical education programs per hospital.

These factors singly and in combination influence the effect that a change in payment methods may have. For example, hospital-school educational association is an important factor since the closer the association, the more likely that professional patient care revenues will be used to support other faculty and other activities.

EVALUATION OF PAYMENT METHODS AND THEIR EFFECT ON SAMPLE INSTITUTIONS

Six payment methods -- conventional fee, IL 372, Section 227 fee, Section 227 cost, unified, and lump sum -- were identified for study.

Conventional fee is the traditional method by which physicians are paid for professional services to Medicare beneficiaries where no simultaneous teaching is involved. The physician bills his charges to the patient or the carrier. If the carrier determines that the charge is "usual and customary" and within the prevailing charge levels, payment is made. It is assumed that the physician, himself, provided the services to the beneficiary.

IL 372 fee is a modification of the conventional fee payment method that is designed to fit the teaching setting where a house officer under the supervision of the teaching physician may provide professional services to the patient. The teaching physician actually bills the charge to the patient or the carrier. IL 372, itself, describes the conditions under which services must be provided in order to be determined "personal and identifiable service" to the patient or "personal and identifiable supervision" of the house officer in his provision of services to the patient. This is the current guideline for determining when payment should be allowed teaching physicians for professional services to Medicare beneficiaries.

Section 227 fee as proposed tightens the IL 372 criteria for eligibility for fee payment, and for other than emergency cases requires a pre-admission relationship between the physician and patient. Presumptive tests based on patient liability are established for determining in which hospitals or hospital settings physicians can automatically be paid on a fee basis. Where hospitals or physicians fail to meet these presumptive tests hospitals can elect to be paid on a cost basis for physician direct patient care services to Medicare beneficiaries.

Section 227 cost was promulgated on an interim basis under regulations implementing Section 15, PL 93-233. Under this method of payment, hospitals can be reimbursed at reasonable cost for direct physician services to Medicare beneficiaries, provided that all physicians who render services in the hospital either elect to be paid in this way or agree not to bill charges.

The unified payment method allows for payment on a charge basis for direct patient care services of house officers and teaching physicians in teaching hospitals. Payment is made for the services rendered without regard to whether they are delivered by a teaching physician or a house officer. The house officers are employees of a physician organization. The physician organization receives and controls all professional service revenues, compensates its members fully, and includes a broad spectrum of specialty and subspecialty services. Under the pure form of this payment method, all house officers and teaching physicians would be supported by professional service revenues, Part B in the Medicare context.

The lump sum payment method allows for negotiated payment for professional services to a beneficiary group. The negotiated agreement establishes the services to be provided, the amount of payment, who will provide the services, and describes the patient group without necessarily enumerating the population of the group or the services to be provided to its members. It permits prospective payment for professional services and negotiation of the conditions which must be met in the provision of care.

Each payment method was evaluated to determine the extent to which it would satisfy congressional concerns and how it would affect teaching physician compensation and activities, institutional organization and financial support, graduate medical education, and patient care.* For analytic purposes, it was assumed that each payment method would be applied in all teaching hospitals. The analysis shows that no single payment method can satisfy fully the congressional concerns or avoid adverse effects on graduate medical education in the United States.

Conventional fee, the basic physician payment method of the Medicare program, is not suited, without special conditions, to the teaching hospital and the joint activities of education and patient care. The unified and lump sum payment methods are little known and not in use in the Medicare program. Therefore, although these three payment methods are analyzed in Chapter 6, Part II, they are not discussed here. However, the steering committee's recommendations include the unified payment method with strict criteria as a usable model and the lump sum and other payment methods as experimental models. The major effects of the IL 372, Section 227 fee, and Section 227 cost payment methods are summarized below.

*The analysis and evaluation of each payment method is in Chapter 6, Part II.

IL 372 Payment Method

IL 372 is the currently used fee-based method of payment for the professional services of teaching physicians in the teaching setting. It is distinguished from the conventional fee-for-service method (used to pay physicians in non-teaching settings) by a set of criteria which define the attending physician relationship. Where this attending physician relationship is established, Medicare pays on a reasonable charge basis where the beneficiary receives services rendered by interns and residents under the personal direction of the attending physician, or from the physician himself. Beneficiaries may receive patient care services from house officers (reimbursed under Part A) even though the full requirements for charge payment of the supervising physician are not met.

As noted in the legislative history, IL 372 has only partially satisfied the concerns of Congress. The extent to which it has satisfied them is largely a function of improved understanding of and ability to meet its requirements on the part of teaching physicians. Problems remain, particularly, because IL 372 is not well understood by all parties. It was found that carrier interpretation of IL 372 varies, as does interpretation by affected physicians and institutional providers.*

Section 227 Fee Payment Method

As the substitute for IL 372, the suspended Section 227 fee payment method set out much stricter criteria for an attending physician relationship. The additional criteria included a prior patient-physician relationship and retrospective demonstration that the hospital or physician had billed and collected fees for physician services from at least 50 percent of the patients in the same setting. Where these criteria are not met, Section 227 includes a cost method of payment which is required if payment is desired for physician services to beneficiaries.

Data from field observations indicate that most teaching physicians who can meet the attending physician criteria of IL 372 can meet the physician role test (Test A) of Section 227. However, since hospitals rarely bill and collect fees for professional patient care, and physician billing and collection records are inadequate for providing retrospective proof of billings and collection rates by payor, few teaching physicians could demonstrate that they meet the patient liability test (Test B).

Meeting the criteria for attending physician status does not assure:

- that Medicare beneficiaries will receive private care, if that is paid for, since documentation of the medical records remains the primary source of audit information;

*For a more detailed discussion of carrier administration, see Chapter 5, Part II.

- promotion of a single class of care in the hospital since cost-based payment is provided when the attending physician criteria are not met; or
- that the payment method will be comprehensible and acceptable to carriers, physicians, and institutional providers; or, that there will be uniform application of regulations and instructions.

The availability of cost-based payment for physician services in particular settings within the hospital when the attending physician criteria are not met offers the potential for:

- creating classes of patients within the same hospital based on source of payment for physician services;
- continuance of private and non-private settings within hospitals.

The attending physician criteria in Section 227 place equal emphasis on the nature of the patient-physician relationship and the quality of the physician's billing and collection system. These criteria, especially the patient liability test, would result in a high failure rate of physicians who try to meet the criteria for an attending physician on the basis that they are providing personal and identifiable services to beneficiaries. If the physicians who fail to meet the criteria desire payment for these services, they must go to a cost-based method of payment. The effects of such a shift are described below.

Section 227 Cost Payment Method

The cost method presently available to teaching physicians is an elective method of payment promulgated through interim regulations implementing the cost provision of the suspended Section 227 as authorized by Section 15 of PL 93-233. Where elected, cost payment must be effective for an entire institution and no fee billing (except on special units) is permitted for patient care services to Medicare beneficiaries in the institution. All reimbursement for the services of teaching physicians and house officers is made on a reasonable cost basis. In the sample institutions which have elected the cost method, professional service revenues have increased. In some cases, before changing, the Medicare program paid for the physicians' direct patient care services on the basis of charges related to costs; that is, physician salaries. Since such charges were subject to the 20 percent Part B coinsurance provisions, the hospital's income on this basis generally would not equal actual costs. In other cases, little or no income was generated through fees because billing and collection mechanisms were ineffective or were prohibited or restricted by local or state law. Also, where some hospitals attempted to bill for attending physician services, the criteria for the attending physician relationship were inadequately documented in the medical records and payment was not made.

Under the elected cost method, the effects have been:

- increased revenue for physician services and, correspondingly, increased program costs;
- physicians are not required to provide personal and identifiable services, and there is no monetary incentive for them to provide such services (those who do are paid the same as if they did not);
- receipt and control of professional service revenues pass to the institution;
- physicians are not required to provide patient care to program beneficiaries, nor is there a monetary incentive for them to do so or to maintain or increase productivity.

In institutions or parts of institutions which would be required to go on a cost-based method of payment because the physicians could not meet the Section 227 criteria as attending physicians, there would be the following effects:

- professional service revenues might decrease, and correspondingly, costs to the Medicare program would be reduced;
- in institutions where faculty are supported in some part by professional fee revenues, a reduction in revenues could result in the need to identify replacement revenue, reduce faculty, reduce faculty time in house officer supervision, or reduce the number of house officer positions;
- any reductions in the number of house officer positions might fall in the needed primary care specialties because training in ambulatory care is expensive but contributes relatively little to hospital revenues;
- except for voluntary physicians who cannot charge for their services, physicians would be required to become direct employees of hospitals or enter into a contract for services to the teaching hospital to establish the cost of their services;
- some teaching physicians may elect not to work in this kind of teaching setting; and
- additionally, the last three effects described above for hospitals which have elected cost payment could also be expected to occur.

From the standpoint of congressional concerns, cost-based payment is appropriate where personal and identifiable services are not provided.

The structural effects of changes in payment methods could precipitate fundamental reorganization of graduate medical education in the United States. However, much of the initial reaction to Section 227 focused on the dollar differences that would result from payment under the cost method as opposed to payment under a fee method.

These differences are difficult to compute for several reasons. Fee revenue data are often unobtainable, and were available in total and by payor for only a small number of the 81 non-federal hospitals studied. Cost data are easier to obtain through the Medicare cost reports. Depending on the accounting practices used in each hospital, however, the cost data may not be directly comparable or easily assembled into a figure that accurately represents the cost of teaching physician services provided Medicare beneficiaries. It is difficult, too, to compare fee revenue data within states or from one part of the country to another since different carriers determine usual and customary charges and prevailing fee screens for teaching physicians differently.

In the following analysis, the costs for physician services include factors which approximate the costs of practice for physicians outside institutional settings. This permits comparison of the costs to the Medicare program under different payment methods and increases the accuracy of the dollar difference computations presented for the sample institutions where data were available.*

Comparisons of Dollar Differences

The effects on dollar flows of changing from cost to charge payment, or vice versa, for patient care services are presented for the two general cases. Since five of the payment methods analyzed are charge-based, the differences between them relate either to the conditions under which teaching physicians can be paid on a fee-for-service basis (conventional fee, IL 372, and Section 227) or to the nature of the structural arrangements for paying them (unified and lump sum); the sixth payment method is cost reimbursement. Determining the revenue differences among the five charge-based methods could not be done accurately and was not pursued.

Table 3 shows the estimated revenue change for seven sample hospitals currently receiving cost or compensation-related charge reimbursement for physician services, should they be paid for these services on a fee-for-service basis. For some of the hospitals, total professional service revenues under a charge method of payment would be several times the estimated cost reimbursement, for others it would be less. Generally, the large increases would come to small hospitals in which the bulk of patient care is provided by house officers and, thus, teaching physician costs are quite low.

Table 4 shows current Medicare revenues to faculty practice plans in six medical schools where all faculty professional service fees go into the plan. Estimated revenues are shown for each school under two methods of computing cost. Cost Computation 1 covers only physician salaries and fringe benefits (estimated at 15 percent). The formula is: professional service cost equals total physician compensation times the proportion of physician time spent in patient care and related activities. Patient

*For details of these computations, see Chapter 6, Part II.

TABLE 3. ESTIMATED MEDICARE COST REIMBURSEMENT FOR PHYSICIAN PROFESSIONAL SERVICES AND POTENTIAL REVENUES UNDER FEE-FOR-SERVICE PAYMENT, FY 1974, HOSPITALS ON COST

Hospital	Estimated cost reimbursement for physician services, Title 18 (thousands)	Potential revenues under fee-for- service payment (thousands)	Percentage change in Revenues
A5	384	1,531	+ 300
D4	65	104	+ 61
D5	21	146	+ 600
B2	362	239	- 34
G3	658	590	- 10
AA <u>a/</u>	7	78	+1,014
S5	376	345	- 8

Source: Institute of Medicine field data.

a/This hospital has two departments. One department currently bills fee-for-service; the above computations apply only to the cost department.

Table 4. MEDICARE FEE REVENUES AND ESTIMATED REVENUES UNDER TWO COST
COMPUTATIONS, MEDICAL SCHOOL PLANS, FY 1974

School	Medicare fee revenues		Cost computation 1 <u>a/</u>		Cost computation 2 <u>a/</u>	
	Amount	Percent	Estimated	Estimated	Estimated	Estimated
	(\$ thousands)	total	revenues	percent	revenues	percent
		fee	(\$ thousands)	change in	(\$ thousands)	change in
		revenues		revenues		revenues
A (A1)	948	12	825	-13	1,235	+30
B (B1,B6)	864	20	595	-31	897	+ 4
C (C1)	821	14	471	-43	942	+15
J (J1, J3) <u>b/</u>	1,727 <u>c/</u>	20	1,227	-30	2,455	+42
N (N1)	557	10	593	+ 6	890	+60
P (P1)	777	14	1,009	+30	1,514	+95

Source: Institute of Medicine field data.

Note: Dollar amounts rounded to nearest \$1,000; percentages rounded to nearest percent.

a/Cost computation 1 covers physician salary and fringe benefit (15 percent) costs only; cost computation 2 in addition includes other costs in support of patient care. See text for more detailed description of computation.

b/J has departmental practice plans; all other institutions have school-wide practice plans.

c/Estimate.

care time is obtained from the activities analysis and includes pure patient care, half of joint teaching and patient care, patient administration, and an allocated portion of professional development and general administration. In these institutions, the proportion of time in these activities varies from one-third to almost one-half.

Computation 2 includes not only physician costs computed as above, but also some other costs associated with the provision of professional services to patients such as billing and collection, office space for practice, and insurance.

Depending on the availability of data, Medicare's share of costs in each case is based on either the ratio of Medicare patient units to total patient units in the principal teaching hospital, or the ratio of Medicare fee revenues to total fee revenues for the practice plan.

Most of these schools would lose a substantial proportion of revenues under Computation 1, although one would gain 30 percent in professional service revenues.

Table 5 shows similar computations for the six sample hospitals which bill charges for physician services. Under both computations, three of the hospitals would experience a decrease in revenues, three an increase. In the latter hospitals only a few patients are billed fees.

The results of these computations show that changes in the method of payment would have mixed effects on the professional service revenues in these institutions. No clear-cut pattern of loss or gain can be discerned, except that institutions where professional service revenues have been low in relation to the amount of service provided generally would receive increased revenues under cost reimbursement.

This mixed pattern of change in institutional revenues also makes it difficult to discern any significant difference in the cost to the Medicare program under either a cost or charge payment method. Since cost reimbursement requires no out-of-pocket beneficiary payment, the same services will cost the program more if the allowable costs to the institution approach full costs.

The difference in costs to the Medicare program under the cost and charge methods of payment is best stated as a percentage change relative to amounts paid on an allowable charge basis in Fiscal Year 1974 to the sample institutions where data are available. Under the cost method, more hospitals would gain professional service revenues than lose and the increased cost to the Medicare program is estimated to be two percent greater than the amount paid under the charge method in Fiscal Year 1974.

TABLE 5. MEDICARE FEE REVENUES AND ESTIMATED REVENUES UNDER TWO COST COMPUTATIONS,
HOSPITALS ON CHARGES, FY 1974.

Hospital	Medicare fee revenues		Cost computation 1 a/		Cost computation 2 a/	
	Amount (\$ thousands)	Percent total fee revenues	Estimated revenues (\$ thousands)	Estimated percent change in revenues	Estimated revenues (\$ thousands)	Estimated percent change in revenues
G2	5,190	21	2,087	- 60	3,131	- 40
K6	943	32	400	- 57	599	- 36
G1	955	18	382	- 60	573	- 40
A2	150	28	168	+ 12	253	+ 68
J5	136	30	185	+ 36	278	+104
A3	49	18	225	+359	338	+596

Source: Institute of Medicine field data.

These attempts to make comparisons between the program costs of physician services under cost and charge are separate from any consideration of whether it is better public policy to pay for the costs of those services from Part A or from Part B. This question does not affect comparison of the costs to the Medicare program of charge or cost payment for the patient care services of teaching physicians and is not addressed in this study.

No one of the payment methods investigated avoids adverse impacts and is fully responsive to the congressional concerns, and no one of them offers clear-cut cost savings or increases to the government programs. The steering committee's payment method proposals are directed at the congressional concerns and toward reducing adverse effects on teaching physician compensation and activities, institutional organization and financial support, graduate medical education, and patient care.

RECOMMENDATIONS

The steering committee has developed recommendations that recognize congressional concerns about appropriate and equitable payment of teaching physicians for professional services in teaching hospitals. The 81 non-federal sample hospitals studied are representative of the 1,250 non-federal teaching hospitals in the nation. Detailed studies in the sample hospitals and related medical schools have found great diversity in the institutions, the physician compensation arrangements, the control of professional fee earnings and expenditures, the organization of patient care, and the involvement in graduate medical education. The recommended payment methods -- an elective cost method and a unified method of payment -- answer the concerns of Congress, but neither can be applied to a large proportion of teaching physicians at the present time. In the opinion of the steering committee the best that can be done, under current circumstances, in many teaching hospitals is to make important but nevertheless incremental improvements of the methods already in use.

The steering committee believes that, for these recommended payment methods to be effective, other third party payors should adopt them.

The steering committee does not intend the recommended payment methods to be selected unilaterally by teaching physicians and teaching hospitals. Changes in the payment method applicable to a particular institution should not be effected without an agreement with the carrier and intermediary on behalf of the Social Security Administration that would include the timing and any conditions incident to the change.

RECOMMENDATION 1. A COST-BASED METHOD OF PAYMENT

The elective cost reimbursement payment method currently in effect under Section 15, Public Law 93-233 should be continued. Minor modifications are recommended in the following guidelines:

- In hospitals electing cost, fee-based payment should be allowed for special care units, such as burn units or poison centers, that are open to the community.
- Payment for physician services should reflect as closely as possible the full costs of providing the services.
- Under the cost payment regulations issued under Section 15, Public Law 93-233, inclusion of payment of the imputed value of volunteer services should be continued because:
 - Volunteers provide valuable uncompensated patient care and teaching services to graduate medical education that would otherwise have to be obtained from paid physicians.
 - It will allow the hospital to improve patient care and provide some educational and research benefits to its programs.
 - Loss of volunteer teaching physician services in hospitals with mostly non-private patients could deny access of non-private patients to the services of community physicians, some of whom offer specialties not included in the hospitals' employed physician staff.
- Under the same cost regulations, there should be the following modification: The ceiling of \$30,000 (for fiscal years starting July 1, 1973, and subject to revision for subsequent years) on the imputed value of a volunteer teaching physician's services should be changed to the average salary for full-time physicians in the area or the VA compensation for full-time physicians if an area average is unavailable.

Institutions should be allowed to shift from cost to an entirely fee-based payment method by notification of the carrier and intermediary that all of their physicians who meet the proper criteria will begin billing on a fee basis for their services at the beginning of the next cost reporting period. At the close of a six-month period, the carrier would conduct an audit of the care provided; if the audit results were deemed satisfactory, and fee billing allowed, the two year phase out of cost reimbursement for supervisory and teaching services would begin with the next accounting period. (See Recommendation 3).

RECOMMENDATION 2. A UNIFIED METHOD OF PAYMENT

The unified method is appropriate to institutions where there is a physician team approach to patient care and graduate medical education. Present knowledge and understanding of this method of payment suggest that it is responsive to the concerns of Congress and also appropriate to the ideals of graduate medical education. All covered services of licensed physicians (teaching physician and house officer) to Medicare beneficiaries would be paid for on a reasonable charge basis. House officers who have not completed the first year of post-M.D./D.O. training (or the second depending on state licensure requirements) are to be paid on a cost reimbursement

basis to the hospital. The proposed conditions for this payment method limit its application to teaching institutions where there is a close relationship between teaching physician and house officer so that the conditions for personal and identifiable service are met by the team regardless of who actually performs the service.

Characteristics of the Unified Payment Method

- Fee billing for services rendered (a daily or capitation rate for physician services may be more appropriate).
- Whether the teaching physician or the house officer delivers the service should not affect the level of payment for the service provided.
- No cost reimbursement for house officer salaries, except for house officers who have not completed the first year of post-M.D./D.O. training (or the second depending upon state licensure requirements).*
- All payments would be made on an allowable charge basis and out-of-pocket costs to beneficiaries would increase because of the co-payment provisions in Part B.

Institutional Conditions for the Unified Payment Method

- There must be a closed panel of teaching physicians in an organized group who receive all of their compensation from the organization, who will enter into a relationship with the house officers.
- Teaching physician practice must be limited to one or two hospitals.
- The closed panel must include skills necessary for a broad spectrum of medical and surgical service within the institution(s). (See Recommendation 3, point 7.)
- To adopt the payment method the institution must have no graduate medical education programs on probation but may have them on provisional approval.

RECOMMENDATION 3. A FEE-BASED METHOD OF PAYMENT

A fee-based method of payment is appropriate, although not necessarily the only appropriate method of payment for teaching physicians, only when they provide personal and identifiable services to program beneficiaries or directly supervise the provision of such services by house officers. Medicare's split financing and the nature of graduate medical education call for special definition of "personal and identifiable." However, the payment method alone cannot assure that personal and identifiable services will be provided and the program's and the beneficiaries' interests must be protected through Professional Standards Review Organizations, carrier audit practices, and other appropriate mechanisms.

*Some additional direct payment of a portion of such house officer salaries might also be considered if necessary to adequately support the educational mission and reduce some of the shift of costs to the beneficiaries.

With one exception, the role test as described in the proposed Section 227 regulation is deemed appropriate as a test of whether personal and identifiable services are provided. The exception is the requirement for a pre-admission relationship between the physician and patient. This requirement does not recognize the fact that although a patient may not have been referred or admitted by his own physician, he may be indeed receiving personal and identifiable services from an attending physician.

Pre-admission or prior patient-physician relationship, however, is an appropriate "screen" for identifying situations where fee-for-service payment would be automatic. This screen appropriately applies to the physician and his provision of service, not to the institution and its ability to collect or demonstrate past collection of professional service fees as required in the proposed Section 227 patient liability test. Applied this way, the prior relationship screen meets the administrative purpose of the patient liability test which is to identify situations where it reasonably could be assumed that the physician role test was being met.

Guidelines for a fee-based method of payment should include:

- Phasing out cost-reimbursement for supervisory and teaching services in teaching hospitals where fees are paid, over a two-year period at the rate of 50 percent per year. At the close of the two-year period, no cost-reimbursement would be allowed for:
 - Supervision or teaching of house officers, except the director of medical education as noted below;
 - Regular or routine teaching physician service on general care nursing units; and
 - Administrative services of teaching physicians, except where there is a written agreement defining the specific services to be performed; for example, director of medical education, administration of a pulmonary function laboratory, cardiac catheterization laboratory, or the like.
- The Medicare Cost Report forms should be revised so that reimbursable costs for administration, supervision, and teaching of house officers will be reported as an identifiable item. This will permit monitoring of the phase out and assessment of its effects.
- Cost reimbursement for house officer salaries, fringe benefits, and related costs would continue.
- The prior or pre-admission relationship which is to be used as an administrative screen should be defined to include any of the following:
 - Patient was seen in attending physician's office prior to admission to the hospital;
 - Referral of the patient to an individual, a department, or the institution by an out-of-area physician;

- Referral of an inpatient to another physician or department within the hospital; or
 - Emergency patients and out-of-area patients who are assigned to a teaching physician covering the hospital.
- The following physician role test (modified from the proposed Section 227 regulations)* should be adopted. The teaching physician:
 - reviews the patient's history and the record of examinations and tests, and makes frequent reviews of the patient's progress;
 - confirms or revises the diagnosis and determines the course of treatment to be followed; and
 - personally examines the patient on admission and sees the patient regularly thereafter during the stay; and
 - personally supervises treatment provided by interns, residents, or others to assure it is appropriate, and is present and ready to perform any services performed by a personal physician in a non-teaching setting when a major surgical procedure or a complex or dangerous medical procedure is performed; and
 - is recognized by the patient as his personal physician and is personally responsible for the continuity of the patient's care; and
 - is looked to by the patient to provide or arrange for any needed followup or post-hospital care.
 - Within one year, reviews to determine whether personal and identifiable services are being provided to beneficiaries should be conducted in all hospitals in which small proportions of patients meet the criteria for pre-admission patient-physician relationship as described above.
 - Institutions should be free to shift from any one of these three recommended payment methods to another, provided the conditions of that option are met. Timing and conditions of the shift must be negotiated with the respective carrier and intermediary. Under the recommended payment methods, all teaching physicians rendering service in a hospital would be covered by a single payment method, with exceptions as noted under Recommendation 1. Mixed and geographic settings for different payment methods within a hospital would not be recognized.

As a result of this recommendation the sample hospitals which currently claim cost reimbursement for supervisory services of teaching physicians would incur a loss to the institutions over two years totalling some 13 to 18 million dollars if they remain on a fee basis.

RECOMMENDATION 4. DEMONSTRATION AND EXPERIMENTAL PAYMENT METHODS

Three payment methods are recommended for demonstration and experiment in the Medicare and Medicaid programs. Each proposal for a demonstration

*Part A, Intermediary Manual, DHEW, No. A3141.5, July 1973.

or experimental payment method should include a plan for evaluating the payment method which includes its effects on the program beneficiary, the physician, the institutional provider, and the program itself.

- The unified method of payment (Recommendation 2) with less restrictive conditions and criteria as may be proposed by physician groups or institutions and agreed to by the Social Security Administration on a demonstration and experimental basis.
- The lump sum method is used widely to provide payment for professional patient care services to specific patient groups, for example, crippled children under Title V, Maternal and Child Health. This method of payment involves a negotiated contractual relationship between physicians or institutional providers and the payor. The contract specifies the services that will be provided, the amount that will be paid for them, who will provide them, and may enumerate the patient group as well as describe its characteristics. On an experimental or demonstration basis, the lump sum method of payment offers the features of a negotiated rate for services to a defined patient group, payment in a known amount for physician services, and annual negotiation which can reflect payor satisfaction or dissatisfaction with the services received and physician satisfaction or dissatisfaction with the amount and conditions for payment. The lump sum payment method can provide an intermediate step for the physician group wishing to change from cost to fee-based payment or as a probationary payment method to be required by the payor when conditions for fee-based payment are not fully met. Uncertainties, which may result in possible serious disadvantages, with respect to the lump sum method preclude recommendation for its full adoption. These uncertainties include definition of the patient group, definition of an appropriate physician group, assurance of teaching physician participation in the provision of care, and definition of the appropriate relationship between the physicians and the hospital.

Services of both house officers and teaching physicians could be paid on the basis of costs or charges or both.

- A fee-based method under which licensed residents in family practice, general practice, pediatrics, and general internal medicine who have completed either the first or second year (where a second year is required for licensure) of post-M.D./D.O. training would be certified by the director of the training program as qualified to perform independently certain specified services or procedures in the hospital outpatient department. The resident could be paid for these services just as any fully trained physician would be and he would be the attending physician. There would be no cost reimbursement for salaries of these residents and no consultant fee paid for teaching.

RECOMMENDATION 5. Section 227 of Public Law 92-603 should not go into effect on July 1, 1976. Until new legislation can be enacted and attendant regulations issued, Section 227 of Public Law 92-603 should be further suspended and authority to continue cost reimbursement for physician services under Section 15, Public Law 93-233 should be extended.

RECOMMENDATION 6. Administrative priority should be given to more uniform application of the Medicare regulations and guidelines in teaching hospitals across the country. Efforts to improve administration should include:

- A determination of the priority to be assigned administration of teaching physician payment methods in relation to other carrier activities by the Bureau of Health Insurance and the carriers.
- A mechanism to improve communications between carriers so that implementation strategies can be exchanged;
- Selection of teaching hospitals for audit by a sampling methodology that reflects the volume of teaching patients in the institution who are program beneficiaries;
- detailed instructions by the Bureau of Health Insurance on sampling procedures and specifications of acceptable and unacceptable medical record documentation for establishment of an attending physician relationship.

RECOMMENDATION 7. To move toward more uniform treatment across programs, the recommended payment methods for teaching physicians should be given serious consideration by state Medicaid programs and other third party payors.

RECOMMENDATION 8. Proposals for future changes in the method of payment should be accompanied by estimates of the dollar differences to result from the change, the effects on the structure for receipt and control of professional service revenues, and the effects on the beneficiary, institutional provider and professional, and the health insurance program.

IMPLICATIONS OF THE RECOMMENDED PAYMENT METHODS

The implications of the recommended payment methods can be extended to the universe of teaching hospitals and teaching physicians because they were developed in light of data collected in field studies in a sample of teaching hospitals that represents the diversity of institutional organization and financial support, teaching physician compensation and activities, graduate medical education, and patient care organization. The proposed payment methods were designed to fit the four patterns of patient-physician relationship that characterize graduate medical education at the present

time. In some hospitals, there is a patient-physician relationship which is similar to the individual physician/individual patient pattern of most non-teaching hospitals. In other hospitals, there is a physician team/individual patient relationship in which the formally recognized attending physician is less involved in the patient's direct care than are the house officers on the team. In a larger number of hospitals than is included in either of the above mentioned groups, both patterns occur. In some hospitals, the physician team/individual patient relationship is conducted by an integrated team in which each member provides only the service that his particular stage of training qualifies him to perform and the formally recognized attending physician is involved fully in the patient's direct care.

The recommended payment methods recognize this diversity and meet the congressional concerns about Medicare sometimes having paid for a type of care not received by its beneficiaries and sometimes having paid twice for the same service. The recommendations also allow for movement toward methods which provide for a single class of care for all Medicare beneficiaries within a particular hospital, providing, for example, the incentive of simpler administration by eliminating the need to document personal and identifiable service criteria under the cost and unified methods.

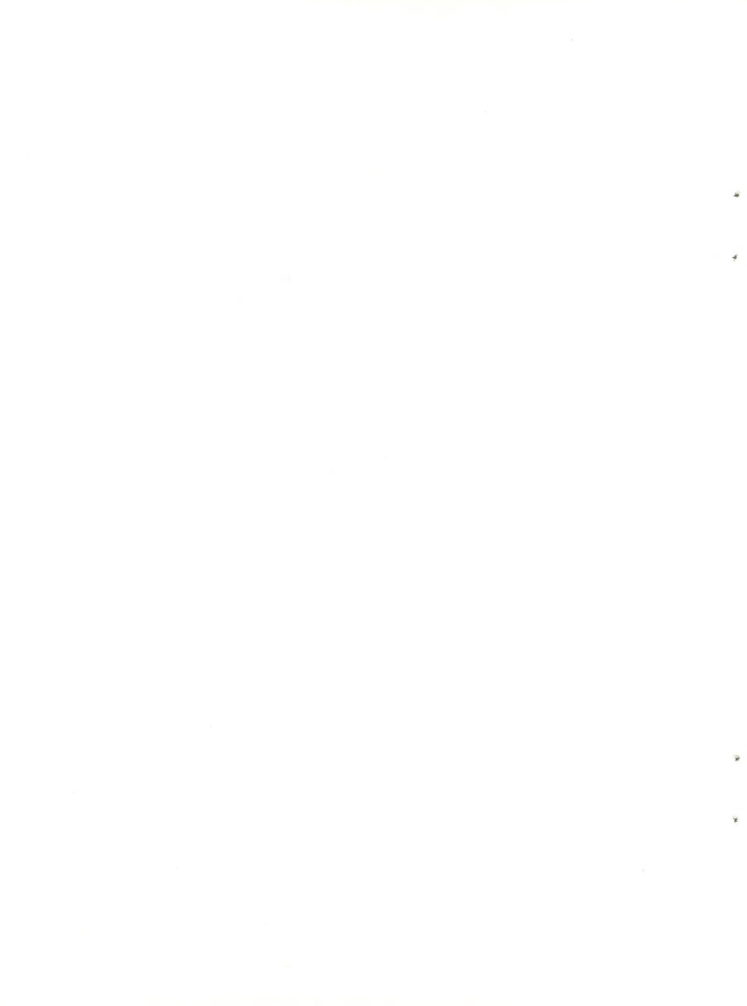
In the institutions where the physicians elect cost reimbursement, all physician services will be paid on a cost basis. The institutions and physician organizations which can meet the criteria for the unified method of payment will be paid on a charge basis for all services. Under the unified method, the institution or physician organization is, in effect, assuring Medicare that necessary patient care services are being provided to beneficiaries by appropriately qualified physicians. In both cases, Medicare is assured that its beneficiaries are receiving the care that is paid for.

In contrast to the institutional or organizational assurances under the cost and unified methods, the fee-based method (Recommendation 3) requires that each teaching physician meet certain requirements for payment on a charge basis. If they meet and document these requirements, fee payment is appropriate; if they do not, no payment would be made. Although house staff salaries, fringe benefits, and related costs would be cost reimbursable, costs for supervisory and teaching services of physicians would not be reimbursed following the close of a two-year phase out period. Thus, the fee method would require a decision to provide the same services to all beneficiaries on a fee basis if the criteria were met and documented; on a cost basis if the physicians so elected; or on a unified method if the conditions were satisfied.

From the standpoint of program administration, these payment methods offer the potential of future reductions in costs of administration and administrative activity in hospitals where physicians elect to be paid under the cost or unified method and where the prior contact screen of the fee

method is met. The administration of the fee method will benefit from the experience gained in the administration of payment under IL 372 and from adoption of the suggestions made under Recommendation 6. In the future, administration should become simpler, barring fundamental changes in the law, as the opportunities are reduced for confusion over when it is appropriate for teaching physicians to be paid a fee for the services to beneficiaries under these recommended payment methods.

It appears that the recommended payment methods, if they are applied appropriately, will meet the congressional concerns, at least in part, and will have small, if any, adverse effects on teaching physicians and teaching hospitals. Yet, the directions for resolution of the teaching physician problem have been established and the mechanisms for achieving that resolution are at hand.



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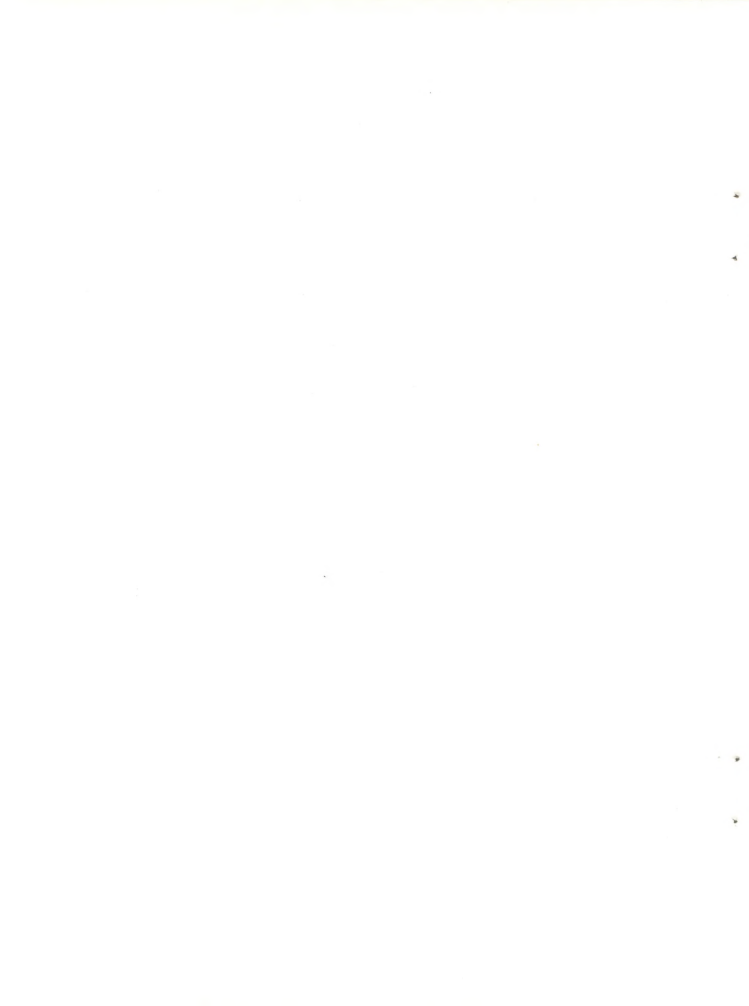
Chapter 1

1

U.S. Congress, Senate, Social Security Amendments of 1972, S. Rept. 92-12300 to accompany H.R. 1, 92d Cong., 2d sess., 1972, p. 195.

2

U.S. President, "Services of Physicians Supervising Interns and Residents" Federal Register, 38, no. 138, sect. 405.521(c)(3)(i) and iii, 19 July 1973.



Chapter 2

CHANGING THE SPECIALTY AND GEOGRAPHIC DISTRIBUTION OF PHYSICIANS

The Social Security Act Amendments of 1973 direct the Secretary of Health, Education, and Welfare to:

...arrange for the conduct of a study or studies concerning...the extent to which funds expended under [Titles XVIII and XIX] are supporting the training of medical specialties which are in excess supply....how such funds could be expended in ways which support a more rational distribution of physician manpower both geographically and by specialty....

To respond to the charge, the study group explored the following questions: How can "excess supply" be determined? What goals can be set to achieve a more rational distribution of physicians among specialties and geographic areas? What tools are available through federal financing programs which can influence the specialty and geographic distribution of physicians? What other federal policies might be adopted to bring about change in the present distribution of physicians?

This chapter addresses each of these questions. It begins with a discussion of the problems encountered in trying to define an "appropriate" supply of physicians by specialty and geography. Second is a description of the results of seminars held to determine goals for a more rational specialty distribution of physicians. Third is an examination of trends in the supply of residency positions in the different specialties to determine if they are consistent with present and future physician manpower goals. The chapter concludes with a discussion of specific policy measures for achieving these goals.

Since data about determinants of physician choice of specialty and geographic location are lacking, many of the recommendations and suggestions are based on judgments. A major recommendation calls for a commission of representatives of private organizations and the public to monitor physician manpower distribution and to determine limits on residency positions by

specialty. These limits are to be applied by the Liaison Committee on Graduate Medical Education (LCGME) and the Committee on Postdoctoral Training of the American Osteopathic Association through their accreditation powers to control the number of positions in each training program.

DEFINING APPROPRIATE PHYSICIAN DISTRIBUTION FOR THE UNITED STATES

The United States has fewer contact physicians* and more specialists per population than any other developed country. In 1973, 46 percent of physicians in the United States could be designated as contact physicians; in the National Health Service of England and Wales, 57 percent are so designated (Table 1). Although Canada has a similar percentage of contact physicians, a greater proportion of Canadian physicians are in general and family practice. The proportion of physicians in a particular specialty was lower in Canada and only in orthopedics and anesthesiology were the British proportions of specialists greater than the United States. Although the health care systems of the countries listed in Table 1 are organized and financed differently from that of the United States, the dependence of the United States on physician specialists is nonetheless striking. Analysis of physician staffing patterns in organized health care systems, including health maintenance organizations (HMOs), showed great variations in specialty distributions from one system to the next. There is no agreement among organized medical care systems on the optimal distribution of physicians to serve a given population.

Within the United States, physicians of all specialties are distributed unevenly among the fifty states and the District of Columbia.** In Mississippi and South Dakota, there are fewer than 80 patient care physicians per 100,000 population in active practice; in New York, California, Massachusetts, and the District of Columbia, the active patient care physician-to-population ratios far exceed that of the nation as a whole. Within a single state, the disparities may be as great: in Manhattan there are more than 800 physicians per 100,000 people, and in Lewis County, New York, there are only 52 physicians per 100,000 population. But even within Manhattan, there are neighborhoods where very few physicians practice.

*Throughout this chapter, "contact physician" includes general and family practitioners, general internists, and general pediatricians. Although this group of physicians delivers most primary care (longitudinal, first-contact medical care in the presence and absence of disease), other physician specialists help to meet the primary care workload. For a definition of primary care, see glossary.

**See Chapter 7, Part II.

TABLE 1. PERCENT DISTRIBUTION OF PHYSICIANS IN THE UNITED STATES, ENGLAND AND WALES, AND CANADA (1973), BY SPECIALTY

Specialty	United States	England and Wales	Canada
General and family practice	25.4	54.0	40.6
General internal medicine	14.4	1.5	6.5
General pediatrics	6.0	1.9	2.8
Total Contact Physicians	45.8	57.4	49.9
Psychiatry	7.1	4.8	4.4
General surgery	10.7	6.8	8.9
Obstetrics and gynecology	6.6	4.1	3.3
Orthopedic surgery	3.3	4.1	NA
Ophthalmology	3.4	1.6	3.3
Anesthesiology	3.9	5.2	3.6
Radiology	4.8	2.5	3.1
Other	14.4	13.5	23.5

Sources: G.A. Roback, Distribution of Physicians in the U.S., 1973 (Chicago: American Medical Association, 1974). American Osteopathic Association, 1974 Yearbook and Directory of Osteopathic Physicians, (Chicago: American Osteopathic Association, 1974). World Health Statistics Annual, 1970 Vol. 3, (Geneva, World Health Organization, 1974).

NA: Not available.

These differences in physician density can be explained in part by the presence of high-density areas of major tertiary care medical centers which serve patients who reside outside the state or county. The major reasons for density differences, however, lie in the complex set of factors that make some areas of the country particularly attractive to physicians and others particularly unattractive.*

Although available data provide some external and internal comparisons of physician distribution, they do not indicate what distribution is most desirable. Determining the "right" distribution of physicians according to specialty and geography is a complex and imprecise process. Research methods on this topic and the data base necessary to support research on appropriate physician distribution are in the early stages of development. Ideally, physician manpower needs should be determined from epidemiological data that indicate "needs" of the population. Yet this approach cannot be

*See Chapters 9 and 10, Part II.

used because there is no agreement on needs; furthermore, the "caring" function of physicians is not taken into account in this formulation.

In addressing goals for future physician distribution, it is important to consider the relationship between physician distribution and other components of the health care delivery system. For example, the desirable physician specialty distribution may be influenced by the availability of non-physician allied health professionals. If specific types of allied health professionals can perform some physician tasks, thereby increasing the productivity of the physician in delivering those services that only a physician is qualified to provide, then physician manpower policy should be modified to accommodate such substitution.

The organization of medical services also will influence public policy in physician manpower distribution. A geographic area that has a highly regionalized medical care system with clear lines of referral may require fewer specialists than a less highly organized area. A multispecialty group practice may have different practice patterns than a physician in practice alone. To reach decisions on the appropriateness of physician specialty distribution, therefore, more information is needed on the practice patterns and productivity of specialists in different systems and in different geographic areas, including the amount of primary care specialists deliver. Studies conducted by the American College of Surgeons and the American College of Cardiology provide some evidence that both surgeons and cardiologists spend significant amounts of time delivering non-specialist care.

Determining goals for specialty distribution also requires that value judgments be made. For example, people in the United States traditionally seek a specialist, rather than a generalist, for many medical problems that may not require a specialist's attention. This cultural pattern and possibilities for modifying it must be considered in the establishment of physician manpower goals.

Efforts to improve the health care system by improving physician distribution must also take into account the financing of health care services. If there are segments of the population that do not have ready financial access to physician services, 1/ then merely changing the physician distribution would not appreciably improve the health services received by these people. There are limits to what can be achieved by changing or increasing the supply of physician manpower without also changing other influences on the health care system.

Another issue that complicates the task of developing goals for physician distribution is that there is no direct relationship between the services generated by the health care system and the health status of the population

it serves. Above a certain level, the addition of resources for direct medical services may not significantly improve the health status of the population. 2/

In addition, the value to the patient of the "caring" as opposed to the "curing" function of the physician cannot be measured. With adequate access to a physician, the caring aspects of medical services can be made more widely available.

Many other factors contribute to the health status of the population. Income, lifestyle, environment, education, housing, nutrition, health education, and the availability of public health services may have more effect on health than medical services. 3/ The direct effect of changes in one variable, such as physician distribution, on the health status of the population, is blurred, both by the influence of these other determinants of health and by other aspects of the health care system. Because the complex interrelationship among the many factors which contribute to the health status of the population makes it difficult to measure directly the effect of any one factor, the manpower analyst must rely on indirect measures of the effect of any given physician distribution.

DETERMINING GOALS FOR SPECIALTY DISTRIBUTION

With full recognition of the difficulties inherent in trying to estimate appropriate physician manpower needs, the appropriate total supply, and the total for each specialty, the study group conducted a series of seminars to collect the judgments of experts in the health care field. There was general agreement among all panels that the proportion of the physicians classified as contact physicians should be increased, and the proportion of physicians in some specialties should be reduced. Based on results of the manpower distribution panels and an analysis of the literature, the steering committee reached the conclusions summarized below.

Specialty Distribution

- There should be an increase in the total number and proportion of contact physicians as one approach to increasing access to primary care. Merely increasing the percentage of physicians in these specialties will not necessarily increase patient access; financial and institutional barriers to ambulatory care must be removed where they exist.
- There should be no further increase in the ratio of general surgeons and other surgical specialists to population. The only practical way to avoid such an increase is to decrease the number of physicians entering training programs in the surgical specialties.

- Because information is lacking on the practice patterns of physicians in the non-surgical specialties, it is not yet possible to address specialty redistribution in many areas of medicine. The absence of recommendations in these areas means only that further study is needed.
- Physician manpower distribution in the United States should be monitored and evaluated for each specialty. Such a monitoring system must be combined with a mechanism to effect a redistribution of physicians among specialties if there is evidence of maldistribution.

Geographic Distribution

- Patient access to contact physicians should be improved by increasing the number of contact physicians in critically underserved areas,* assuring financial access to ambulatory care in all areas, and adopting alternatives to extend the geographic range a physician can serve.
- Because of the complex relationship between physician specialty distribution and the health care of the population served, the study group was not able to resolve whether there is a geographic maldistribution of non-contact physicians.

MODELING PHYSICIAN SPECIALTY DISTRIBUTIONS**

These conclusions were based in part on the results of seminars held to explore methods for determining the optimal distribution of physicians, both generalists and specialists, for a specific geographic area. Panelists representing different disciplines were given all relevant available information, and were asked to develop an optimal physician specialty distribution for one of four states - Arizona, Georgia, Michigan, or Oregon. Each panelist independently determined an optimal physician specialty distribution for the state under consideration and was given the opportunity to modify his initial estimate after group discussion.

Data on the productivity of physician specialists and the extent to which specialists are engaged in nonspecialty practice which are available for only selected specialties 4/ and geographic areas, 5/ were most useful to the panelists.

There was a broad range of opinions on the optimal distribution of physicians by specialty for the four states. Although the panelists disagreed on the

*HEW had designated 981 counties and areas as underserved as of February 1975.

**See Chapter 8, Part II for a detailed description of the modeling panels.

absolute optimal levels for physician specialty categories, there was agreement on the direction of desirable change from the current physician distribution. Changes suggested by the panelists were consistent with those of professional organizations which have examined the question of physician specialty distribution. 6/ All panelists favored increasing the numbers of contact physicians, and most panelists agreed that the numbers of some surgical specialists should be reduced. These suggested changes in the physician specialty distribution applied over broad ranges of total physician supply thought to be optimal by individual panelists. Although it is predicted that the total physician-to-population ratio in this country will increase during the next several decades, the recommendations for directions of change in physician specialty distribution are applicable to the expanded physician manpower pool. When these suggested directions for change in the physician specialty distribution are contrasted with the projections of future specialty distribution which predict an exaggeration of the current specialty imbalance, the need for changes in strategy for training physicians becomes apparent. The panelists were asked to consider the degree to which allied health professionals could substitute for physicians in some specialties; there was general agreement that there were insufficient data on which to base such estimates.

Trends in Training Positions

To achieve the goals for specialty distribution discussed above, the number of training positions in the contact specialties must be increased and those in surgery, and at least to some extent in subspecialty medicine, must be decreased.

Data from the Institute of Medicine's survey of teaching hospitals showed that in the period 1970 to 1974, the number of residencies in the contact specialties increased by 99 percent; the number of residencies in surgical specialties and medical subspecialties increased by 41 percent, and 141 percent, respectively (Table 2). When total positions (internships, residencies, and fellowships) were examined, the trend was similar, although the increase in positions in contact specialties was slightly less.

In addition to trends in the absolute numbers of positions, it is necessary to examine contact specialty positions as a percentage of total physicians. Survey data showed that in 1970, 25 percent of the residency positions were in contact specialties, five percent in medical specialties and subspecialties, 40 percent in surgical specialties, and 30 percent in other specialties. By 1974, the percentage of positions in contact specialties had increased to 32 percent and surgical positions had declined to 36 percent. When 1974 first-year residencies alone were examined, the percentage of contact specialties was 43 percent and surgical specialties 30 percent.

TABLE 2. PERCENT CHANGE IN THE NUMBER OF RESIDENCY AND TOTAL TRAINING POSITIONS BETWEEN 1970 AND 1974 BY SPECIALTY

Specialty	Residency Positions			Total Positions		
	1970	1974	Percent change	1970	1974	Percent change
TOTAL	23,865	37,343	+56	35,340	54,130	+53
Contact specialties subtotal	6,037	12,065	+99	10,800	19,965	+85
Family practice	135	1,545	+1,044	267	1,795	+572
General practice	116	203	+75	208	323	+55
Internal medicine	4,179	7,583	+81	7,725	13,559	+76
Pediatrics	1,607	2,734	+70	2,600	4,288	+65
Medical specialties subtotal	1,141	2,039	+79	2,350	4,026	+71
Medical subspecialties	168	405	+141	990	1,801	+82
Pediatric subspecialties	67	124	+85	288	517	+80
Nuclear Medicine	10	65	+550	20	71	+225
Other Medical specialties	896	1,445	+61	1,052	1,637	+56
Surgical specialties subtotal	9,648	13,641	+41	11,598	16,611	+43
General surgery	3,932	5,503	+40	5,111	7,312	+43
Obstetrics and gynecology	1,701	2,454	+44	2,084	2,981	+43
Surgical subspecialties	4,015	5,684	+42	4,403	6,318	+43
Other specialties subtotal	7,039	9,598	+36	7,949	10,953	+38
Anesthesiology	1,033	1,521	+47	1,165	1,764	+51
Pathology	1,555	2,005	+29	1,884	2,377	+26
Physical med. & rehab.	159	301	+89	176	323	+84
Psychiatry	2,473	3,346	+35	2,750	3,815	+39
Radiology	1,819	2,425	+33	1,974	2,674	+38
Rotating internship				2,643	2,575	-3

Source: Institute of Medicine National Survey Questionnaire.

These data confirm that first year and total positions in contact specialties are increasing, both in absolute numbers and as a percentage of total positions. However, it should be noted that this trend is overstated by the extent to which trainees in programs in general pediatrics and general internal medicine enter residencies or fellowships in a subspecialty or medical specialty. When all training positions are considered, 13 percent of the internal medicine and 11 percent of the pediatric positions are in subspecialties.

The National Intern and Resident Matching Program (NIRMP) reported that the rate of increase in positions offered in primary care specialties has been considerably less than the increasing numbers of applicants for such positions. A recent unpublished report from that organization concluded, "The medical centers and program directors if they are to accommodate the goals of the students, must increase the number of positions in these fields."

Although the trend in training positions in the past few years has been toward contact specialties, the lack of complete data for the most recent years, evidence from NIRMP that sufficient primary care positions are not available for applicants, and a belief that further changes in the mix of training positions is needed to improve the proportion of contact physicians in the total physician population, have led the study group to conclude that a stimulus is needed to accelerate the increase in contact versus other specialties.

STRATEGIES FOR CHANGING PHYSICIAN DISTRIBUTION IN THE UNITED STATES

The study group has considered how the goals for physician distribution outlined earlier might best be achieved, and specifically, the influence that might be exerted by changes in Medicare and Medicaid payment practices. Strategies for changing the specialty distribution are considered first, followed by a discussion about effecting changes in the geographic distribution of physicians. A summary of factors which have been identified in the literature as influencing each of these distributions is included for each section.

Influences on Specialty Choice

Research findings from the perspectives of many disciplines have been published about the reasons why physicians choose to specialize in a particular area of medicine. An extensive list of factors has been identified as influencing physician choice of specialty, but to date no comprehensive theory has been designed to assess the relative importance of these factors at the same time. Most studies analyze the decision

*See Chapter 9, Part II.

to specialize in contrast to the decisions to become a general practitioner; they therefore have limited utility for the current policy question, which is why physicians choose contact specialties or referral specialties. Definitions and methods vary from study to study and limit the usefulness of existing studies. Nevertheless, several tentative conclusions can be drawn from a review of the literature.

- Non-economic factors must be taken into account in explaining specialty choice; economic factors alone, particularly expected lifetime earnings, do not provide an adequate explanation.
- There is no fixed time at which a decision to choose a particular specialty is made; at least 50 percent of physicians do not firmly commit themselves to a particular specialty until the senior year of medical school or later, and up to a third may delay a final decision until the end of the first year of residency training. Specialty choice is frequently changed, particularly if made early in training. With the end of the freestanding internship, however, these patterns may change.
- There are few personal characteristics that distinguish between contact and referral physicians. Indeed, such contact physicians as general practitioners, family practitioners, general internists, and general pediatricians do not share common traits.
- Physician specialty preference is conditioned by background, personality characteristics, and academic ability, and is reinforced by medical school and graduate medical education experiences.
- In the past, the environment of major teaching hospitals, which are secondary and tertiary care institutions, may have encouraged medical students and interns to choose specialty and subspecialty medicine. A community hospital environment for an internship has been more likely to encourage the choice of a contact specialty than that of the primary teaching hospitals. However, this difference may be as much a choice of pre-selection by the student as it is a reflection of the influence exerted by the respective hospital environments. This expansion of residency programs in community hospitals cannot necessarily be expected to increase the number of positions only in the contact specialties. Also, with the end of the freestanding internship, the influence of these institutions on the final specialty choice may be less important than that of the medical school environment.
- In the medical school context, faculty influence, including that of interns and residents, is an important factor in determining medical student and graduate trainee selection of specialties. The paucity of primary care role models compared to the preponderant influence of

faculty in the specialties may be partially responsible for specialization and for aggravating the imbalance toward subspecialty medicine among recent graduates.

- Limited opportunity for training in well organized ambulatory care medicine in most undergraduate and graduate medical education programs may have further encouraged the trend toward specialty and subspecialty medicine.

It is clear from the literature that it is possible to influence choice and encourage the growth of particular specialties throughout medical school and possibly until residency training. The choice of a specialty for most physicians appears not to be determined by one agent at one particular time, but by a series of factors during a considerable period. Although, future income may be a factor, it is only one of many determinants which influence specialty choice. Hence, strategies to influence specialty choice should be directed not only at financing policies but also at the content of training programs, their location, and their distribution by specialty. The number of residency slots available by type controls the number of specialists of each type produced. Thus, the recommendations of the study group for changing the specialty distribution of physicians depend upon influencing the total number of specialty mix of residency positions in the country.

STRATEGIES FOR INCREASING THE PROPORTION OF CONTACT PHYSICIANS

An increase in the number and proportion of contact physicians is an important objective for achieving a more rational specialty distribution of physicians. The major way to achieve this objective is to influence or control the number of residency slots in each specialty; the financing of graduate medical education should also be supportive of the desired balance. The present benefit structures of public and private health insurance programs have more generous coverage of inpatient than outpatient services, although the trend has been toward the increasing coverage of outpatient services. These programs indirectly influence specialty distribution of physicians at the graduate medical education level and the practicing physician level. The discussion following describes the effects of these programs and suggests policy measures that might lead to an increase in the number of contact physicians. In the subsequent section, methods are described that would ensure that residency positions are consistent with the specialty goals enumerated above.

The Influence of Third Party Payments at the Graduate Level

Third party payments provide little direct support for the costs of undergraduate medical education. However, they pay indirectly for a considerable

amount of undergraduate and graduate clinical instruction by their support of the costs of house officer salaries and supervisory time of attending physicians and other support personnel, and by paying fees to attending physicians who provide joint teaching and patient care with medical students and residents. Under existing reporting systems, it is not possible to separate these payments into individual training programs within a particular hospital; therefore, it is not possible to respond directly to that part of the congressional charge.

It is possible, however, to comment on certain Medicare practices that tend to favor some specialties over others in revenues generated by the attending physicians, costs recovered for outpatient services, and, ultimately, in resources available for graduate training programs. For example, physicians in the contact specialties, who deliver a larger proportion of their care in the outpatient setting, are more likely to collect none of or less than the full charge for the services provided. This is due to several factors. In the first place, for non-Medicare or Medicaid beneficiaries, a greater proportion of the inpatient population is likely to have adequate insurance coverage compared to those requiring outpatient care, and many come to teaching hospitals because they offer care without charge. Secondly, only 80 percent of the cost of physician services, including those provided in an outpatient department, are covered by Medicare, with the remaining portion to be paid by coinsurance. Many Medicare beneficiaries who cannot afford the coinsurance required for an office visit will seek their care in the outpatient department attempting to avoid these payments. Similarly, many Medicaid patients have limited access to community physicians because of the complicated administrative arrangements in the program, and the non-competitive level of Medicaid payments. Therefore, they also seek care at the outpatient department of nearby hospitals. Third, even when Medicaid will pay for the visit, the payment tends to be well below the costs or charge for providing care. Thus, there is disincentive for the physician to provide services in an outpatient department, including joint teaching and patient care, since income generated from fees will decrease. When all or part of these fees revert to the hospital, there is also a disincentive from the institution's point of view to encourage or expand outpatient services.

The major disincentive for the hospital, however, derives from the fact that on the hospital side, Medicare will pay only 80 percent of the costs of operating an outpatient department.

These factors make it more difficult for hospitals to generate adequate income to cover the costs of ambulatory care services and training programs, either within the hospital or at an offsite location, thereby discouraging

hospitals from establishing ambulatory care programs for training physicians in primary care.* The study group recommends that financing mechanisms be changed to provide more equitable support for ambulatory care services so that medical schools and teaching hospitals would find it easier financially to support primary care training programs. Furthermore, Medicare and Medicaid monies might be used as an incentive to support the expansion of training opportunities in the contact physician specialties. The costs of residencies in the contact physician specialties should be excluded from provisions of Section 223** which place a ceiling on the allowed increase on costs to be covered by Medicare.

Other Proposals to Encourage the Production of Contact Physicians

The lack of financing of certain ambulatory care training activities, particularly in medical centers, has led to an expansion of direct project support for these programs with private, state, and federal dollars. Several states -- Florida, Illinois, South Carolina, West Virginia, North Carolina, Kentucky, Tennessee, and Arizona -- have enacted or considered various types of legislative proposals to provide direct support for house officer salaries and certain administrative costs of family practice residency programs. 7/ In response to these state initiatives, a growing number of medical schools and teaching hospitals have introduced or expanded their primary care teaching of medical students and residents.

- In the absence of a competitive level of support for residencies with ambulatory care orientations, until third party payment mechanisms have been restructured, the study group recommends that direct support to medical schools and teaching hospitals be continued through special project grants. This support should also be extended to cover the other contact specialties of general internal medicine and general pediatrics where quality programs can be maintained.
- Grants could be given to health maintenance organizations, community hospitals, comprehensive health centers, group practices, and other off-site training locations to cover the costs of training medical students and residents.

*It can be argued that since uncollected charges can eventually be written off as a bad debt under Medicare, the hospital eventually collects 100 percent of the costs from Medicare. However, the time lag involved and the indirect nature of this transaction do not adequately balance the short-term loss during the time decisions are made in the institution.

**Section 223 authorizes the Secretary to establish limits on overall direct or indirect costs which will be recognized as reasonable for comparable services in comparable facilities in an area.

The VA graduate medical education system plays a major role in graduate training. The VA system employed five percent of all interns and six percent of all residents in the United States during 1973-74. The distribution of residencies by specialty is similar to the general pattern, except there are no pediatric, obstetric, or family practice residencies. The purpose of VA hospitals and their patient load makes the mix of services provided considerably different from that provided to the general population. However, recent trends have been toward opening up the VA system to a broader spectrum of care, particularly outpatient care.

- Because the VA system trains specialists who later enter the practice of medicine in internal medicine for the general population rather than the VA hospital population, the VA should be encouraged to increase its emphasis on primary care practice in internal medicine and to continue to develop rotations for house staff to community-based hospitals and ambulatory care settings.

Monitoring System for Physician Manpower Distribution

The study group's analysis of the methods of determining a desirable physician distribution indicates a need for refining the ways to estimate physician manpower needs, obtaining accurate information on the current functional distribution of physicians by specialty and geography, and periodically reassessing national physician manpower strategy.

It is the opinion of the steering committee that a national system for monitoring physician manpower should be established. To be effective, the monitoring function must be linked to a mechanism or a body which can effect the desired changes in physician specialty distribution, over time, by having the authority to regulate the number and distribution of residency training positions. The propriety of a wide range of public and private organizational structures to undertake these functions has been considered. The study group recommends that a combined public and private sector effort be undertaken to monitor and control the number of residency positions, by specialty.

- A permanent quasi-public independent physician manpower commission of 13 members should be established by law to monitor the specialty distribution of physicians and to determine the appropriate number of residency slots for each specialty. The enforcement of the commission's determinations would be the responsibility of the LCGME, the CCME,* and the AOA's Committee on Postdoctoral Training through extension of their respective accreditation mechanisms, to control the number of residency positions in each training program.

*Liaison Committee on Graduate Medical Education and the Coordinating Council on Medical Education.

- Commission members would be appointed by the Secretary of Health, Education, and Welfare within six months after the legislation is enacted. Commission members should be drawn from the fields of medical education, clinical medicine, private practice, biomedical research, the general public, and third party payors. The Secretary should appoint six members from slates of candidates submitted by the five parent organizations of the Coordinating Council on Medical Education and by the osteopathic community. The remaining members should be representatives from other sectors.

The major functions of this commission would be to monitor the physician specialty distribution in the United States and determine changes in the number of graduate medical education positions in those specialties which the commission feels are undersupplied or oversupplied. Its efforts should be coordinated with those of the new local and state health planning agencies created by the Health Planning and Resources Act of 1974. Necessary staff who are independent of the civil service system, and financial resources should be made available to the commission through government appropriation to enable it to carry out its functions, including:

- Assembling all available data on physician specialty distribution and collecting new data in those areas where more information is needed. The commission should be authorized by law to have access to government sources of pertinent data. The widest possible use should be made of existing data resources, particularly those of the National Center for Health Statistics. It would be assumed that any group which is represented must make its data available, if such data pertain to the commission's charge.
- Improving the methods of determining the appropriate specialty distribution for this country.
- Analyzing the current physician distribution and identifying those specialties undersupplied and oversupplied.
- Projecting and identifying future distribution of specialists based on the current distribution of house officers.
- Developing an annual specialty training plan for changes in the number of postgraduate training positions in those specialties determined to be undersupplied or oversupplied.
- Developing a longer range (five to eight years) plan for the appropriate distribution of physicians among specialties, including long-range projections for the appropriate mix of postgraduate training positions. It should be noted that effecting change in specialty distribution is a long process since medical education takes from seven to ten years from college graduation. Major changes in the balance of specialties, therefore, would happen slowly and long-range projections should be updated periodically.

If, after appropriate consultation with the private sector, the Secretary of HEW finds that the commission's determinations have not been implemented within three years following the establishment of the commission, the Secretary should seek legislation to reconstitute the commission as a federal advisory committee to himself and to permit the withholding of Medicare and Medicaid funds from residency programs in specialties considered in excess supply by the commission. The Secretary should inform the commission in advance of any contemplated use of Medicare and Medicaid funds to control the distribution of residency training slots, and should solicit comments from the commission on any other proposed actions by HEW to effect changes in specialty distribution.

Interim Strategy - A Moratorium

Since several years may elapse before the physician manpower commission is able to develop its first set of recommendations, interim measures should be undertaken to prevent continued imbalance in the distribution of physician manpower. There is compelling evidence at present to justify continued expansion of contact physician training opportunities and a reduction in postgraduate positions in the surgical specialties. The study group recommends that the following interim strategy for postgraduate physician training be implemented on July 1, 1977, and remain in force until the commission and the voluntary accreditation agencies have time to develop and implement a comprehensive physician manpower plan. The study group realizes that the LCGME and CCME recognize the seriousness of the present situation and strongly urges the LCGME to extend its accreditation authority to enforce the moratorium described below. The primary care emphasis of the osteopathic graduate training positions makes the implications of the moratorium much less significant for this group.

- With the exception of the category of contact physicians defined as family practice, general internal medicine, and general pediatrics, the number of all other postgraduate specialty training slots available as of July 1977 should be held at the level of residency positions filled as of July 1, 1975.
- The number of training slots for contact physicians should be expanded, with care given to ensure that the highest quality educational environment is maintained.
- There may be unusual circumstances which warrant an expansion of residency training slots in other than the contact specialties. Examples of these situations would include medical schools in the process of development or pending commitments to individual trainees.

Effecting Change at the Practicing Physician Level

Since Medicare and Medicaid payments averaged only about 17 percent of all personal health care expenditures in Fiscal Year 1973, structural changes

in these programs alone can play only a small part in any role that the third party payors may undertake to influence specialty choice through financial incentives. Nevertheless, more generous coverage of ambulatory services by public and private health insurance programs might serve as an incentive for physicians to elect the contact specialties. To encourage this trend, the study group recommends that all third party payors incorporate the following principles:

- Benefit structures, including deductibles and coinsurance, should not encourage the use of inpatient care at the expense of ambulatory care. There should be no reduction in current inpatient benefits under Medicare and private plans to achieve this objective.
- Fees should be restructured to encourage the delivery of primary care services. Fees earned by contact physicians for the delivery of primary care should be at least equal to the fees earned by specialists for these same services.
- In order not to discourage primary care physicians from accepting Medicare and Medicaid beneficiaries, the allowed charges for these programs should be comparable to those of other third party payors. Recognizing the financial pressures faced by state governments, we must nevertheless point out that if fees are very low, as they are in some Medicaid programs, access to health care services may be denied to program beneficiaries.

In addition, the structures of physician payment mechanisms must be examined to determine whether there are inequities by specialty and type of service in the way physicians are paid by third party payors, including Medicare and Medicaid. There is some evidence that the relative value scales currently in use may affect physician income and productivity by specialty, and therefore, may implicitly encourage or deter physicians from entering certain specialties or providing certain services. For example, the physicians' fee for a procedure such as an endoscopy, no matter how simple, is several times more expensive than that for a medical visit encompassing a complete history and physical, 8/ even though they might require the same amount of physician time. Preliminary analysis of Medicare prevailing charges for individual procedures indicate that, in general, specialist charges tend to be higher than those of general practitioners, although the differences are not great.* In addition, the rate of increase in Medicare-allowed charges for most procedure oriented specialties, from 1968 to 1972, was above the average, while that of general practice and internal medicine had below average rates of change. These factors lead the study group to recommend that:

- o A major study should be undertaken to re-examine the basis of physician fees and the fee allowances in public and private health insurance programs.

*For details of the analysis of fees, see Chapter 10, Part II.

This study should consider methods of realignment of the current structure of fees under national health insurance programs if it is found that fees for surgical or medical procedures tend to be much higher than those for general medical services after taking into account the skill and training needed to perform the service and complexity of the medical care being provided. The study should also evaluate geographic differences in fees for the same services. At the same time, the role and implications of the structure of malpractice premiums must be considered to determine whether they serve as entry barriers to practice in certain specialties and how they affect the present structure of fees among specialties.

STRATEGIES TO REDUCE THE DISPARITY IN THE GEOGRAPHIC DISTRIBUTION OF CONTACT PHYSICIANS

To assess the actual or potential role of third party reimbursement policies and payments and particularly that of Medicare and Medicaid, the importance of economic variables on a physician's choice of practice location should be understood. The limited role of Medicare and Medicaid in this process -- they constituted only 17 percent of personal health care expenditures for physician services in 1973, and in 1974 provided more than \$25,000 a year to less than 15 percent of United States physicians in solo practice -- requires a careful assessment of how these programs affect a physician's choice of location or specialty. For only a small number of physicians do Medicare and Medicaid fees represent a majority of the total fees billed and collected for patient care services rendered, and fee levels are only one factor contributing to physician net income. Other factors include the customary fees charged for medical services rendered, the productivity of the physician, the number of hours the physician works, and the costs of establishing and maintaining a medical practice. Unfortunately, accurate data are not available on fees or income to clarify the relationship of Medicare and Medicaid payments and physician net income.

Economic Influence on Physician Location

Literature on determinants of physician choice of geographic location reaches no definitive conclusions about the relative importance of income in a physician's choice of practice location.* The general desire to maximize income, by itself, cannot explain the current distribution of physicians. There is no published empirical evidence on the relationship between net income, fee levels, and physician location choice, and no useful studies have been found which relate Medicare and Medicaid fees to other physician fees, or the effect of Medicare and Medicaid fee levels on physician location or specialty choice. Very little is known about factors which physicians consider when they set their fees or the third party sources of physician income.

*See Part II, Chapter 9 for a detailed discussion.

To explore the relationship between current Medicare and Medicaid reimbursement policies and expenditures and the geographic distribution of physicians, physician distribution at the county level and prevailing* Medicare and Medicaid charges for a selected number of procedures and counties which were analyzed. Adjustments were made for cost-of-living differences. There were wide variations in the prevailing charges used for specific individual procedures for both general practitioners and specialists. Composite indices** of charges for several procedures by county, both for medical and surgical procedures, showed no discernible pattern between or even within counties. The lack of interdependence between the level of prevailing charges for individual procedures within a county was evident in the differences between the surgical and medical indices in most counties. Even rigorous statistical analysis did not explain the variations in prevailing charge levels. In general, it was found that prevailing charges, and therefore, the general pattern of physicians' fees, tend to be higher in areas with high physician-to-population ratios. Other factors with which high Medicare fees are associated are concentration of hospital beds and medical schools, high-income areas, large metropolitan areas, and West Coast counties.

This suggests that there is no incentive in the present structure of fees that would encourage physicians to locate in underserved areas, and that policy mechanisms directed toward that goal need to be developed. Simple changes in the structure of fees will not be adequate to bring about a redistribution, however; other incentives besides income must be created to attract physicians to rural areas.

As shown by the limited evidence on the proportion of physician income derived from Medicare and Medicaid, these programs probably play a minor role in most physicians' total revenues, and marginal changes in these programs may have little impact on the average physician. For those physicians who do receive large amounts of Medicare and Medicaid payments, however, the level of maximum allowable charges in these programs may, in fact, influence their behavior. This potential may be very limited with recipients of Medicare payments, since the option to reject assignment permits the physician to charge higher fees for the services provided; the number of physicians exercising this option has increased markedly since 1969.

With Medicaid, where this option does not exist, fees are often so low they may discourage physicians from treating Medicaid beneficiaries altogether.*** If Medicaid fees in underserved areas were more comparable with the usual and customary fees of physicians in regions which do not have physician scarcities, they might serve as a positive inducement for physicians to locate in underserved areas. For example, in Kentucky, the availability

*For a definition of prevailing charges, see Chapter 10, Part II.

**Chapter 10, Part II includes methods for the computation of county indices.

***For details on Medicaid fees, see Chapter 10, Part II.

of reimbursement by the Medicaid program has influenced physicians located in some of the most rural and poorest parts of the state to remain in practice in those areas. Without Medicaid support, it is highly unlikely that these physicians could earn enough income to continue to practice in these locations. Yet the nature of the Medicaid program, which reimburses at a lower level in these areas than elsewhere in the state, may discourage other physicians seeking a practice location in Kentucky.

The study group recommends that Medicaid practices which pay physicians at lower levels, particularly in underserved areas, be discontinued. This may be difficult to achieve, given the financial pressures faced by many state governments. Furthermore, anecdotal evidence on the disproportionate billing and administrative expense often associated with collecting Medicaid fees suggests that a detailed examination of Medicaid administrative practices should be undertaken to document the extent to which these practices affect the availability of physician services in underserved areas. In addition to the fees generated for patient care services, special per session payments could be made to primary care physicians through project grants as an incentive to remain in underserved areas until physicians' incomes equal those earned by primary care physicians in other areas.

Other Influences on Physician Location Choice

Although economic variables do not seem to be important in explaining the current distribution of physicians, certain non-economic variables appear to be very influential. Many types of community characteristics, including demographic, social, cultural, and environmental factors, are important in a physician's choice of location, but their amenability to influence by public policy is limited. One of the few community characteristics amenable to policy intervention, although at substantial cost, is the community's ability to provide professional contacts and health care resources. In general, there is some evidence that the existence of a medical school may influence the decision of specialists to locate in a given area. Similar results were found for number of hospitals and hospital beds.

There is a direct association between previous geographic contact with a particular area and a physician's choice of practice location. The type of community in which the physician was born or lived before attending medical school, particularly if a rural area, affects the choice of practice location. However, a recent study indicated that only 17 percent of applicants and accepted applicants to medical school in 1973 came from rural backgrounds. 9/ Additional prior location factors which singly and in combination affect location choice are the location of the medical school, the location of internship training, and the location of residency training. In particular, the place of residency training appears to be the single most important influence, with several studies concluding that between 44 and 60 percent of physicians practice in the same state as the site of their residency training. However, they do not necessarily locate in areas within the state that lack physicians.

Several studies suggest that a location decision is not made until after graduation from medical school by as much as 75 to 85 percent of all physicians. There are opportunities to intervene before and during medical school training to influence the choice of future practice location. A combination of policies could perhaps change physician distribution. Attempts to increase the number of medical school applicants from rural backgrounds, perhaps by the extension of financial aid, are not sufficient, since rural-reared physicians who choose non-primary care specialties, practice in urban areas. The development of training sites in rural and inner-city areas at both the undergraduate and graduate level might also be considered. The use of preceptorship training programs to expose medical students and residents to rural practice opportunities is another mechanism which may influence physicians to locate in rural areas. Although there is weak empirical evidence about the effectiveness of the programs, the findings indicate that exposure to rural practice encourages urban-reared medical students and postgraduates, particularly those planning to enter non-primary care, to choose to practice in rural areas; the effect was slight on rural-reared physicians. Although a greater proportion of rural-reared physicians participate in preceptorship programs and choose rural practice, it appears the decision is based on predisposing factors and not program participation. 10/

Similarly, at the graduate medical education level, the commission proposed to monitor the distribution of residency positions by specialty should also consider location in its allocation of training slots. Decisions on location should take into account the need for physicians in small towns, rural areas, and community hospitals, with emphasis on locating these programs in areas where there is evidence of a physician shortage. Care should also be exercised to take into account the needs of the inner-city hospitals which serve as the primary source of care for low-income groups.

In the development of these preceptorship opportunities, the accreditation and certifying groups should ensure that there is a critical mass of patients and supervisory physicians necessary for a good educational program. All preceptorship programs should be closely associated with university-based training activities; to ensure that there is adequate university surveillance of these programs, accreditation of the educational programs within the university setting should be contingent on the preceptorship arrangements providing an educational environment suitable for the type of training being carried out.

Empirical evidence exists which shows a significant relationship between the desire to enter rural practice and an interest in group practice arrangements. This suggests that group practices around a small hospital with a concentration of a critical mass of physicians in a central location, combined with "circuit riding" to satellite clinics, could be experimented with and, if successful, be replicated. Appropriations for experiments

under Medicare and Medicaid could be used to explore the feasibility of adjusting the level of prevailing charges in underserved areas, and the level of customary fees of physicians who would practice in these areas to take account of certain additional costs which might be involved in travel and administration of these arrangements. Experimentation of this type through project grants could also be used to explore the development of organized rotations by teaching physicians in underserved areas on a regularly scheduled basis, to permit them to attend professional meetings and work in a teaching setting. To support these developments, seed money should be available to underwrite the first few years of organized group practice, particularly the salaries of support staff, all of which might encourage physician groups to form in underserved areas. Also considered should be use of allied health professionals who would provide first contact care and who would refer patients to physicians in larger towns, and implementation of new technological developments such as on-line diagnostic techniques and the use of helicopter transfer services.

The experience of the Area Health Education Centers (AHECs) established under the authority of the Comprehensive Health Training Act of 1971 to train and retain health personnel for underserved areas is another promising example of a way to encourage physicians to locate in rural areas. This program differs from the area health education centers established under the auspices of the Regional Medical Program (RMP) of HEW and by the Department of Medicine and Surgery of the Veterans Administration in its emphasis on postgraduate medical education and alleviation of manpower maldistribution problems. AHECs function as links between medical schools, schools of osteopathic medicine, and university health science centers with one or more hospitals, usually community hospitals, which are located some distance from the educational institution and which provide medical services and educational programs in areas underserved by health personnel. The programs include clinical instruction for undergraduate and other health personnel, continuing education for physicians and other health professionals, and residency training with emphasis on training in family medicine and other contact care specialties. There were approximately 13,000 medical, dental, nursing, and allied health personnel, excluding those in continuing education, enrolled in training for the first few years; of these 1,100 were residents. Since the AHEC program has been functioning only four years, it is still too early to assess adequately its accomplishments.

Another federal program organized to attract practicing physicians to the underserved areas is the National Health Service Corps (NHSC). The NHSC recruits and places physicians, dentists, nurses, and other health professionals in areas with critical health manpower shortages, and aids these communities in developing a self-sufficient health care delivery system. By February 1975, 981 counties and areas had been designated as critical health manpower shortage areas, and the corps had approved 428 of these sites for physician assignment.

Doctors entering the corps after their internship can earn more than \$30,000 in the first year, depending on experience. Malpractice insurance is included for all assignees. The retention rate increased from three percent in 1973 to 30 percent in the spring of 1975. During this period, the primary incentive for joining the corps shifted from exemption from military service to the availability of a guaranteed income competitive with other federally employed physicians, but lower than for physicians entering private practice. Between the end of the military draft, and the inception of a competitive income, the retention rate was lowest.

Although income maximization may not be an important objective in physician location choice, potential for maintaining a minimal acceptable income is a factor. Thus, at its present salary level, the corps is attractive to public-service oriented physicians and to physicians who complete their medical education with large debts or with insufficient funds to establish a private practice.

CONCLUSION

The steering committee recognizes that there are major difficulties encountered in developing estimates of the appropriate supply of physician manpower in the United States. The appropriate distribution of physicians by specialty or geography is even more difficult to determine since there are major data gaps on the extent to which contact physicians provide specialty care and other specialists deliver primary care. Nevertheless, based in part on the deliberations of a series of manpower seminars designed to obtain the best judgments of experts in the health care field and findings of other studies, the steering committee has reached the following conclusions about goals for redistributing physicians: there should be an increase in the total number of contact physicians as well as the proportion of all physicians in these specialties; there should be no further increase in the number of general surgeons or surgical specialists per 100,000 population; there should be a reduction in the number of physicians entering training in the surgical specialties; and patient access to contact physicians in underserved areas should be improved.

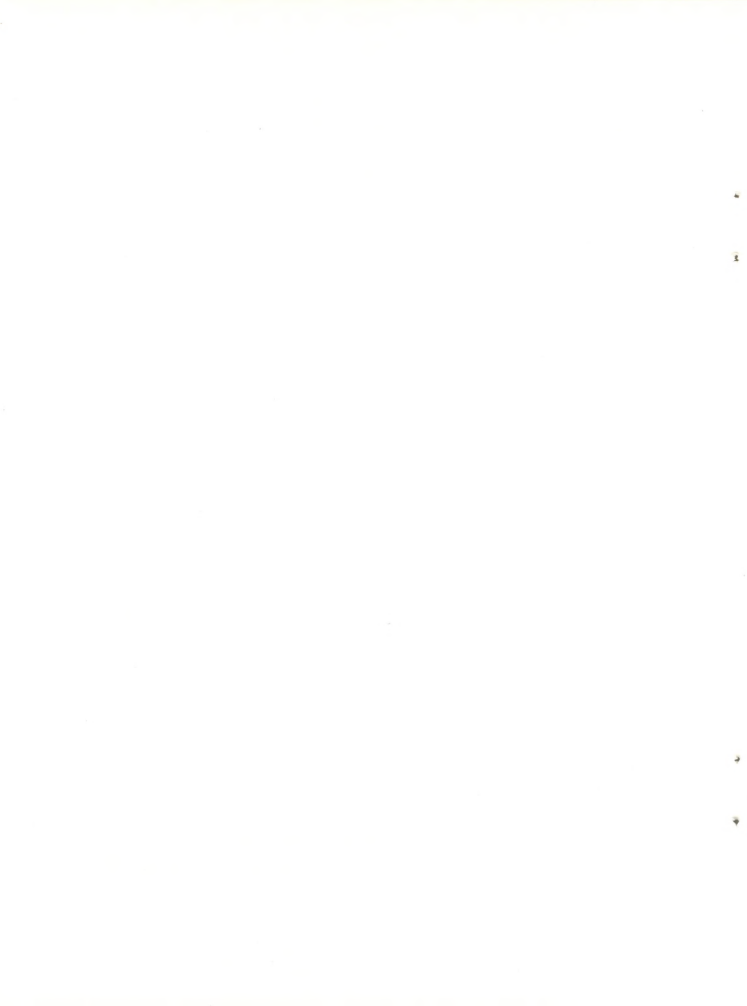
The role that Medicare and Medicaid might play in achieving these goals was examined in considerable detail, as were other policy alternatives available to the federal government and the private sector. The steering committee concluded that third party payments should be restructured to provide more equitable support for ambulatory care services and inpatient services. This would include the level of deductibles and coinsurance, and the proportion of hospital costs covered by Medicare in the inpatient and outpatient departments. These changes would make it financially easier for medical schools and teaching hospitals to support primary care services. Further studies should be undertaken to re-examine the basis of physicians fees and the fee allowance in public and private health insurance programs.

At the graduate medical education level, the steering committee recommends establishment of a permanent, quasi-public independent physician manpower commission to monitor the specialty distribution of physicians in the United States and determine changes in the number of graduate medical education positions in those specialties which the commission feel are in undersupply or oversupply. Commission members would be appointed by the Secretary of HEW and would include six members from the physician community and seven from the public and third party payors. Implementation of its recommendations would be by the LCGME and the AOA's Committee on Post-doctoral Training through extension of the accreditation process to limit numbers. If the commission has not acted within three years after its inception, the Secretary should seek legislation to reconstitute the commission as an advisory committee to HEW and to permit the use of Medicare and Medicaid funds as an enforcement mechanism. Up to the time the commission is established and develops its recommendations, a voluntary freeze, effective July 1, 1977, should be imposed on all residency positions filled as of July 1, 1975, except in the contact specialties, to be enforced by the LCGME and the Committee on Postdoctoral Training extending their accreditation power to control the number of positions in each training program.

The study group concluded that the desired changes in the geographic distribution of physicians should be sought by developing incentives to increase the number of contact physicians in critically underserved areas; assuring financial access to ambulatory care in all areas; and adopting alternatives which extend the geographic area which a physician can serve. The utility of Medicare and Medicaid physician payment policies to achieve these changes is limited, however; these programs constituted only 17 percent of total personal national health care expenditures in 1973, and the present structure of Medicare and Medicaid fees in general possess no incentive to encourage physicians to locate in underserved areas. In fact, fees tend to be higher in areas with high physician-to-population ratios than in physician shortage areas. Also, in some areas both programs, and particularly Medicaid, pay physicians at a lower level than private insurers will pay for the same services. The steering committee recommends that these practices be discontinued, particularly in underserved areas, and that a detailed examination of Medicaid administrative practices be undertaken to ascertain if these practices affect the availability of physician services in these areas.

The development of training sites in rural and inner-city areas at both the undergraduate and graduate levels, expanded use of preceptorship training programs, use of the proposed physician manpower commission to allocate the specialty residency positions by location, the encouragement of group practice arrangements by project grants, the use of allied health professionals and the implementation of new technological developments may all be mechanisms to improve physician distribution in this country. AHECs and the National Health Service Corps are mechanisms already in operation for this purpose.

Since multiple factors affect a physician's choice of specialty and geographic location in the United States and financial incentives play only a minor role in these determinations, a flexible, comprehensive and balanced strategy is essential if the physician manpower goals adopted by the steering committee are to be achieved.



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Chapter 3

FOREIGN MEDICAL GRADUATES

Part D of the congressional charge asks the study group to examine "the extent to which such funds (Medicare and Medicaid) support or encourage training programs which tend to disproportionately attract foreign medical graduates."

"Foreign medical graduate" is defined in this study as a graduate of a medical school located outside the United States, Puerto Rico, or Canada. A subgroup consists of the United States foreign medical graduates, American citizens who graduate from a medical school located outside the United States, Puerto Rico or Canada. Unless otherwise specified, United States foreign medical graduates are included as foreign medical graduates in this study.

Foreign medical graduates have become an increasingly significant source of medical manpower in the United States since the end of World War II. Many foreign medical graduates are from developing nations, and their presence as interns and residents, and particularly as practicing physicians in the United States, has led to concern about the effect this might have on the medical care systems of their original countries as well as that of the United States.

The Institute of Medicine field study data showed that differences in Medicare and Medicaid support for institutions of varying concentrations of foreign medical graduates were not statistically significant.

Data also indicated that foreign medical graduates tend to occupy less competitive, or less desirable, positions. The number of United States medical graduates is increasing, and if there is no increase in the number of internships and residencies, there will be a substantial reduction in the number of slots available for foreign medical graduates within the next decade. The steering committee, therefore, recommends the elimination of existing incentives for physician immigration.

OTHER STUDY GROUPS AND LEGISLATIVE PROPOSALS

Several public and private organizations have studied foreign medical graduates in the United States, beginning in 1967 with the Panel on Foreign

Medical Graduates of the Presidentially appointed National Advisory Commission on Health Manpower (NAC), which concluded that graduate medical education received by foreign medical graduates in the United States should be "designed to fit them for medical practice in their own countries or, in the case of physicians who intend to stay in the United States permanently, designed to qualify them to fully meet the standards of medical education and health care prevailing in the United States." 1/ Furthermore, NAC recommended that the number of physicians receiving undergraduate medical education in the United States be increased so that the supply of physicians and other health personnel will be adequate to meet the nation's needs.

More recently, the Coordinating Council on Medical Education (CCME) has examined the implications of the presence of foreign medical graduates in the United States medical care system, and has developed a policy statement in a report submitted to its parent organizations. 2/ With the exception of three of the forty-eight recommendations, the report has been accepted by all five parent organizations* and expresses the current position of the medical profession. Among the concerns identified by the CCME and also expressed by other groups are:

- inability to evaluate the variation in curriculum content and standards of education in medical schools throughout the world;
- the appropriateness of the examination offered by the Educational Commission for Foreign Medical Graduates as a test of whether a foreign medical graduate can benefit from participation in graduate medical education programs;
- whether a foreign medical graduate's qualifications to provide care in a graduate medical education position and subsequent practice have been adequately tested;
- the deflection of the exchange visitor program from its original purpose of training physicians for service in their own countries to serving as an entry route for practice in the United States;
- the extent to which foreign medical graduates who have failed to meet full licensure requirements are employed in the health care system;
- the extent to which foreign medical graduates are admitted to programs which emphasize service activities with minimal attention to an education program designed to meet their special educational needs; and
- communication difficulties which may exist between physicians and patients with different language and cultural backgrounds.

*American Medical Association, Association of American Medical Colleges, American Hospital Association, the American Board of Medical Specialties, and the Council of Medical Specialty Societies.

Congress has also expressed interest in these issues. Several legislative proposals introduced in the 94th Congress included provisions which would affect foreign medical graduates in United States graduate medical education programs.

In March 1975, the House Committee on Interstate and Foreign Commerce reported out H.R. 5546, which included a provision to limit the number of first-year graduate training positions in 1976 to 155 percent of the number of graduates of United States medical schools. In this bill, authorization for residency slots would be decreased until 1979 when the number would equal 125 percent of United States medical graduates. Since Institute of Medicine data (discussed below) show that training program directors choose United States medical graduates before foreign medical graduates, greater competition for fewer slots would mean fewer opportunities for foreign medical graduates. As a result, opportunities for foreign medical graduates to obtain graduate medical education in the United States would be markedly reduced. On July 11, 1975, however, the House of Representatives passed H.R. 5546 without the section which would have limited residency slots, and sent the bill to the Senate where it was referred to the Committee on Labor and Public Welfare.

The Senate Subcommittee on Health has been considering S. 989 which provides for establishment of regional councils for graduate physician training, one major function of which would be to recommend to the Secretary of the Department of Health, Education, and Welfare the number of graduate training positions to be certified each year. The limit on graduate training positions would be reduced gradually so that by July of 1978, the number of first year positions would equal 125 percent of the number of United States medical graduates. Within the number of positions certified in accord with council recommendations, the Secretary of HEW would assign residency positions among specialties and subspecialties. The bill mandates that such allocations are to be based on a study of geographic and specialty distribution which will consider state and local needs and repercussions from changes in national health manpower distribution. These restrictions would have the effect of curtailing the number of foreign medical graduates in graduate medical education in the United States. The Senate Subcommittee on Health has held hearings on this and other manpower legislation, but as of February 20, 1976, no further action on the bills had been taken. The administration proposal, S. 2748, introduced on December 5, 1975, contains no similar proposal to limit residency positions, nor any specific references to foreign medical graduates.

It is within the context of these concerns and possible legislative actions that the study group examined the issue of foreign medical graduates in graduate medical education. It was decided that the specific language of the congressional charge precluded examination of issues related to quality of care rendered by such physicians or the propriety of acceptance by the United States of physicians from developing countries. Therefore,

the focus of this study is the foreign medical graduate in graduate medical education: where he receives training, the content and structure of the training programs, and the financial support for such programs from Medicare and Medicaid.

FOREIGN MEDICAL GRADUATES IN GRADUATE MEDICAL EDUCATION

Foreign-trained physicians are attracted to the United States by many factors, including the quality of life in this country as well as the excellent medical care facilities and greater professional opportunities available in both graduate medical education and in practice than those which may be available in their own countries. Since the passage of the Smith-Mundt Act in 1948, which authorized the issuance of exchange visas to citizens from other nations who wished to pursue educational opportunities in the United States, physicians have arrived in growing numbers to enter the medical education system, particularly graduate medical education programs.

The American Medical Association reported that in 1950, 722 internships (ten percent) and 1,350 residencies (nine percent) were filled by foreign medical graduates. 3/ Immediately after World War II, many hospitals expanded training programs to accommodate physicians who wished to complete or further their medical training. During this period, there was a record expansion of graduate training positions without a concomitant expansion in undergraduate medical positions. With the Korean conflict's demand for military service from physicians, many approved training positions were vacant, and hospitals increased reliance on foreign medical graduates to fill their needs.

The number of graduate medical education programs and positions continued to grow because of increasing specialization, availability of research funds, and changing career goals. Administrative decisions by federal agencies, such as the one to include hospitals as sites for exchange visitor education programs, were not coordinated with congressional action reducing immigration barriers to physicians; an unexpected side effect of the changes in the immigration laws and the exchange visitor program was to make it relatively easy for foreign-trained physicians to enter the United States. By 1975, one-third of the house officers in teaching hospitals and approximately 20 percent of the total licensed physician population in the United States were foreign medical graduates.

The number of foreign medical graduates entering the country both as immigrants and exchange visitors has increased every year since the 1965 changes in the immigration laws. Each year, however, some foreign medical graduates who receive immigrant visas are already in this country and have adjusted their status from exchange visitor to immigrant. These adjustments must be taken into account to ascertain the actual number of foreign medical graduates arriving in the United States. Recently published data indicate that in 1973 there were 5,144 non-immigrant foreign medical graduates and

7,119 immigrants "entering" the United States. Of this latter number 4,140 were adjustments in status and 2,979 were new immigrants, making a total of 8,123 new arrivals to the United States. 4/ More than half the physicians came from developing countries in Asia and Africa. Preliminary 1974 data indicate that of the 4,537 immigrant visas granted to foreign medical graduates, at least one-fifth were adjustments in status. 5/

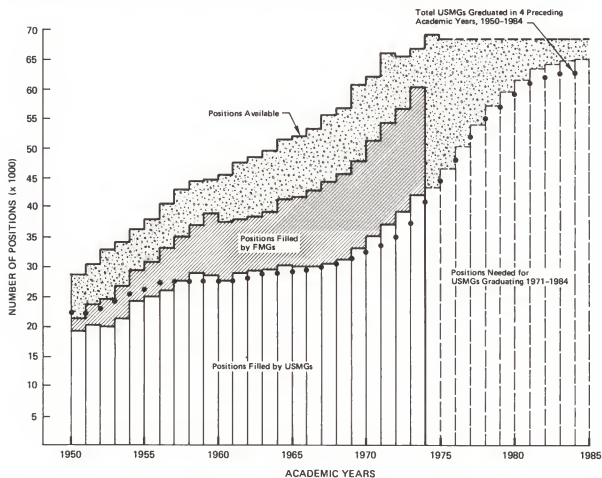
At the present time, there are several countries with a protracted wait for an immigration number, even within the third and sixth (occupational) preference categories.* Many physicians from these countries initially enter the United States as exchange visitors, and subsequently file for adjustment to permanent immigrant status. This should explain data from the past several years which show that the number of immigrants resulting from an adjustment in status exceeded the number of new arrivals to the United States.

Although an immediate reduction in the availability of foreign medical graduates would cause a dislocation in physician supply and patient services offered by certain teaching hospitals, it now appears that the future supply of United States medical graduates will reduce greatly the number of house officer positions available for foreign medical graduates. In response to federal policy in the 1960s to increase United States production of physicians, new medical schools were established and many existing schools increased their class size. As a result, the number of United States medical graduates has continued to grow each year. Figure 1 shows that if there is no substantial increase in the number of graduate medical education slots available, almost all positions can be filled by United States medical graduates by the middle of the next decade. 6/ Since 44 of the 55 medical licensing jurisdictions in the United States require completion of at least one year of approved postgraduate training by foreign medical graduates, 7/ the reduction in the number of internship and residency slots available for foreign medical graduates will reduce the number of foreign medical graduates who can enter the United States medical care system as fully licensed physicians. To the extent that fiscal pressures on teaching institutions reduce the number of training slots, the trend will be accelerated.

The increase in the number of United States medical graduates and the possible decrease in house officer training slots will greatly reduce the training

*Preferential immigration categories were established in Public Law 89-236. Third preference applied to "qualified immigrants who are members of the professions, or who because of their exceptional ability in the sciences or the arts will substantially benefit prospectively the national economy, cultural interests or welfare of the United States." Sixth preference applied to "qualified immigrants who are capable of performing specified skilled or unskilled labor, not of a temporary or seasonal nature, for which a shortage of employable and willing persons exists in the United States."

FIGURE 1
RELATION OF NUMBER OF USMGs TO APPROVED INTERNSHIPS AND RESIDENCIES



Source: John Gordon Freyman, M.D., "A Clinical View of the Foreign Medical Graduate Problem," (unpublished paper prepared for the Department of Health, Education and Welfare)

opportunities available for foreign medical graduates. Implementation of the steering committee's recommendation for a moratorium on most new graduate medical education slots and a mechanism for reduction of existing slots (Chapter 2) will also reduce such opportunities. In view of the increasing number of United States medical graduates, the decreasing number of positions likely to be available for foreign medical graduates, and the possibility that future foreign medical graduates may not be able to secure the graduate medical education necessary for full licensure in this country, the steering committee recommends the elimination of existing incentives for physician immigration, including the removal of medicine as a shortage profession under the Department of Labor's Schedule A.* The recommendation to remove medicine as a Schedule A shortage occupation in no way implies that the steering committee takes a position on whether the United States has adequate physician manpower, but merely reflects the view that graduate medical education positions for foreign medical graduates are not likely to be available in sufficient numbers to justify continued preferential immigration for physicians.

The steering committee also supports establishment and maintenance of a comprehensive data system on foreign medical graduates in the United States to include accurate information on their numbers, training, integration into the United States medical care system, and the professional activities of those foreign medical graduates who do not acquire full certification or licensure.

DISTRIBUTION OF FOREIGN MEDICAL GRADUATES IN HOUSE OFFICER POSITIONS**

The congressional charge specifically requests that Medicare and Medicaid support for programs which "tend to disproportionately attract foreign medical graduates" be examined. Disproportionality is a complex concept which requires normative judgments. In the absence of legislative history defining disproportionality, the study group examined the characteristics of programs and institutions based on their relationship to the national average of foreign medical graduate concentration. Guidelines for specialties, for training programs, and for institutions were established based on analysis of a national survey of teaching hospitals conducted by the Institute of Medicine.***

A particular specialty was considered above the national average if the proportion of foreign medical graduates in training**** exceeded the proportion of foreign medical graduates in training in all specialties.

*Schedule A is issued by the Department of Labor and lists occupations in short supply in the United States.

**Only positions in allopathic institutions were included in this chapter, since there are no foreign doctors of osteopathy.

***For a more detailed discussion see Chapter 11, Part II.

****Only interns and residents were counted in determining house staff in programs and institutions. Fellows and other trainees were considered separately.

A particular training program* was considered above the national average if the percentage of foreign medical graduates exceeded the national average for that specialty. Training programs were classified as follows:

- those with almost no foreign medical graduates,**
- those with a foreign medical graduate concentration at or below the national average for a particular specialty,
- those with a foreign medical graduate concentration above the national average, and
- those with almost all foreign medical graduates.**

An institution was considered above the national average if more than 30 percent of its house staff were foreign medical graduates or if more than 38 percent of its training programs had foreign medical graduate percentages which exceeded the national specialty average. These criteria were based on data which showed that 30 percent of all house officers were foreign medical graduates and that 38 percent of all training programs had concentrations of foreign medical graduates which exceeded the national average for a particular specialty. Institutions were divided into four classifications as above:

- those with almost no foreign medical graduates,**
- those with foreign medical graduate concentrations at or below the national average,
- those with foreign medical concentrations above the national average, and
- those with almost all foreign medical graduates.**

The decision to examine the proportion of foreign medical graduates at the program level as well as the institutional level was made for several reasons. Some institutions have high concentrations of foreign medical graduates in only one or a few specialties. Other institutions with a high overall concentration of foreign medical graduates have programs in one or more specialties which are predominantly staffed by United States medical graduates. House staff in a particular specialty training program may

*A program which was in several hospitals was counted as a separate training program in each hospital.

**Programs and institutions with less than 0.5 percent foreign medical graduates were considered to have no foreign medical graduates; programs and institutions with a foreign medical graduate concentration above 99.5 percent were considered to be all foreign medical graduates.

have little or no contact with house staff in other training programs in the same institution; the exposure of a particular house officer to others, either United States medical graduates or foreign medical graduates, is a function of the program not the institution. Finally, factors relating to the structure of training programs and patient activities tend to vary among specialty programs within an institution.

Specialties

National Survey Questionnaire data showed that foreign medical graduates in training in the following specialties exceeded the national average of 30 percent:*

physical medicine and rehabilitation	65 percent
pathology	57 percent
anesthesiology	54 percent
colon and rectal surgery	54 percent
nuclear medicine	49 percent
therapeutic radiology	44 percent
pediatrics	41 percent
psychiatry	39 percent
obstetrics and gynecology	38 percent
general surgery	37 percent
radiology	34 percent
preventive medicine	33 percent
neurology	31 percent

Specialties with percentages of foreign medical graduates in training well below the national average of 30 percent were:

dermatology	7 percent
ophthalmology	9 percent
family practice	12 percent
orthopedic surgery	14 percent
otolaryngology	17 percent

Training Programs

The average foreign medical graduate concentration was computed for each specialty and subspecialty from National Survey Questionnaire data. These

*The National Survey Questionnaire reported 277 positions in general practice. The programmatic mean for such programs was 87 percent foreign medical graduates. Although there is no specialty board for general practice, it is considered separately in this chapter to avoid confusion with family practice, a recognized specialty which has a foreign medical graduate proportion of 12 percent. Rotating internships were 45 percent filled by foreign medical graduates.

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